

A SCOPING REPORT ON THE ENVIRONMENTAL IMPACT ASSESSMENT FOR MINERAL EXPLORATION ACTIVITIES ON EPL 7010, CENTRAL NAMIBIA

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ENVIRONMENTAL ASSESSMENT FOR MINERAL EXPLORATION ON EPL 7010, CENTRAL NAMIBIA

EXECUTIVE SUMMARY

1. Introduction

1.1 Overview

The proponent, Muzengua Urimonganda Rudolf, was granted an exclusive prospecting licence (EPL) by the Ministry of Mines and Energy. The licence holder intends to explore for base metals within the limestone, dolomite and quartzite rock units that are found in the vicinity of the area. Impala Environmental Consulting was appointed by the proponent to undertake an Environmental Assessment (EA) and Environmental Management Plan (EMP) for the mineral exploration project.

1.2 Location

The mineral license is located 2 km northeast of Khorixas. It covers the townland and communal area. Coordinates for the centre of the licence are -20.358708 and 14.964366.

1.3 Environmental Assessment Requirements

The Environmental Regulations procedure (GN 30 of 2012) stipulates that no mining and mineral exploration activities may be undertaken without an environmental clearance certificate. As such, an environmental clearance certificate must be applied for in accordance with regulation 6 of the 2012 environmental regulations. It is imperative that the environmental proponent must conduct a public consultation process in accordance with regulation 21 of the 2012 environmental procedure, produce an environmental scoping report and submit an Environmental Management Plan for the proposed mineral exploration activities.

1.4 Project Alternatives

An alternative to the proposed mineral exploration activity would be to allocate the land-usage to other income generating activities tourism activities. The proposed project will strictly employ locals from nearby towns and settlements.

ENVIRONMENTAL ASSESSMENT FOR MINERAL EXPLORATION ON EPL 7010, SOUTHERN NAMIBIA

FINAL SCOPING REPORT

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1. Introduction

1.1 Project Background

The proponent, Muzengua Urimonganda Rudolf, was granted an exclusive prospecting licence (EPL) by the Ministry of Mines and Energy. The licence holder intends to explore for base metals within the limestone, dolomite and quartzite rock units that are found in the vicinity of the area. An outline of the area is shown in the image below.

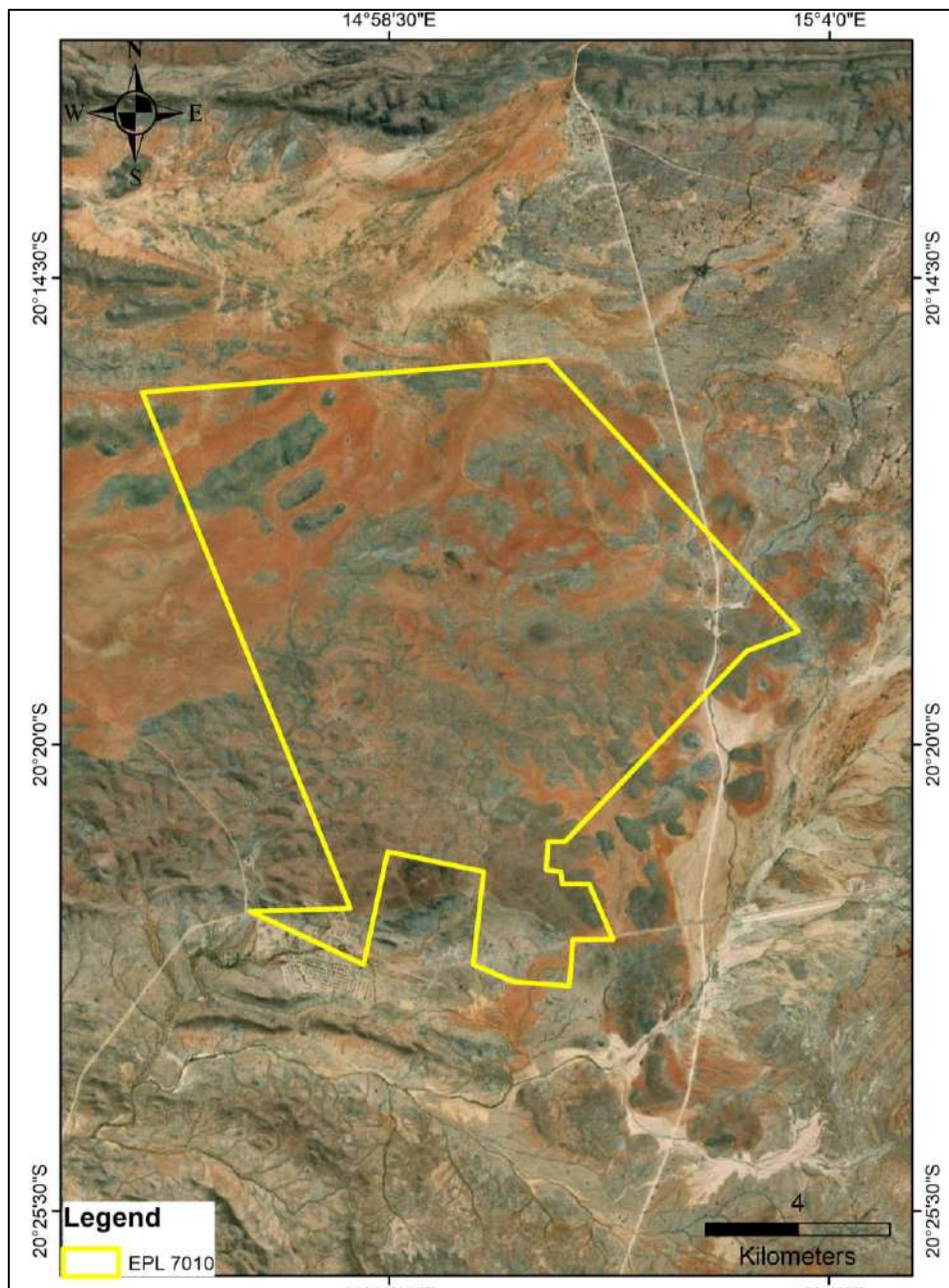


Figure 1 A satellite imagery showing the orientation of the mineral exploration licence.

Figure 2 shows the settlements that are found in the area. The licence is in a communal area.

1.1.1 Mineral Licence Tenure

The exclusive prospecting number is 14/2/1/4/2/**7010**. The Exclusive Prospecting Licence (EPL 7010) was granted in **June 2018**. The licence is valid up to June 2021 with the option of a renewal. The mineral licence is issued to Muzengua Urimonganda Rudolf.

The size of the mineral licence is **6811 Hectares**. It is granted for Base and Rare Metals, Industrial Minerals, Dimension Stone and Precious Metal commodities.

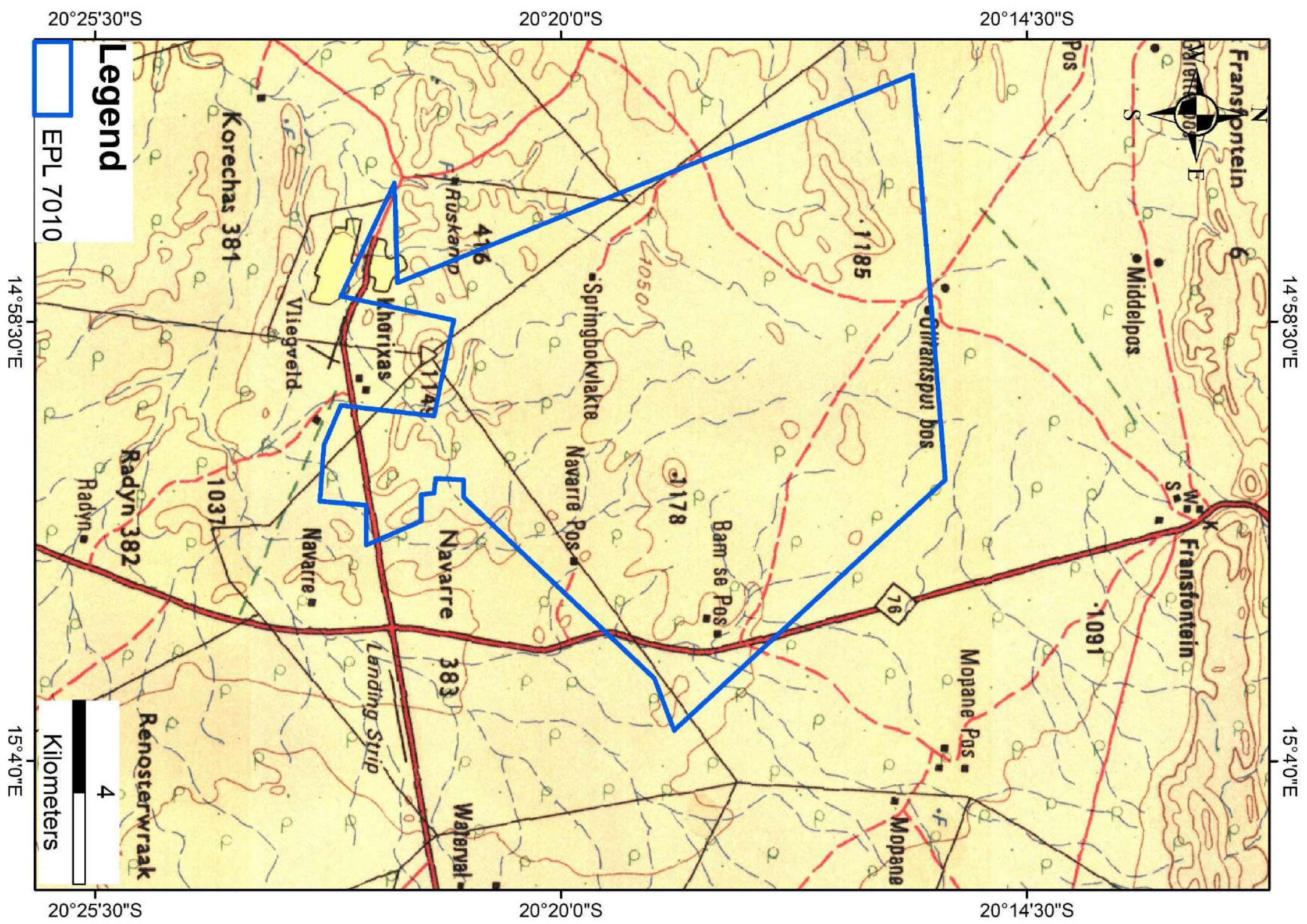
1.1.2 Environmental Consultant

Impala Environmental Consulting cc was appointed by the proponent to undertake an Environmental Assessment (EA) and Environmental Management Plan (EMP) for the mineral exploration project. Impala does not have any interest, be it business, financial, personal or other, in the proposed activity, application or appeal, other than fair remuneration for work performed on this project. The public participation process and report writing was overseen by Mr. Ndaluka Amutenya as the EAP. CV's of various role players are annexed to the appendix section of this report.

1.1.3 Proponent of the Proposed Project

The Exclusive Prospecting Licence belongs to Muzengua Urimonganda Rudolf.

Licence Holder	Postal Address	Email Address	Contact
Muzengua Urimonganda Rudolf			264818498055



1.2 Project Location

The mineral licence is located 2 km northeast of Khorixas. It covers the townland and communal area. Coordinates for the centre of the licence are -20.358708 and 14.964366.

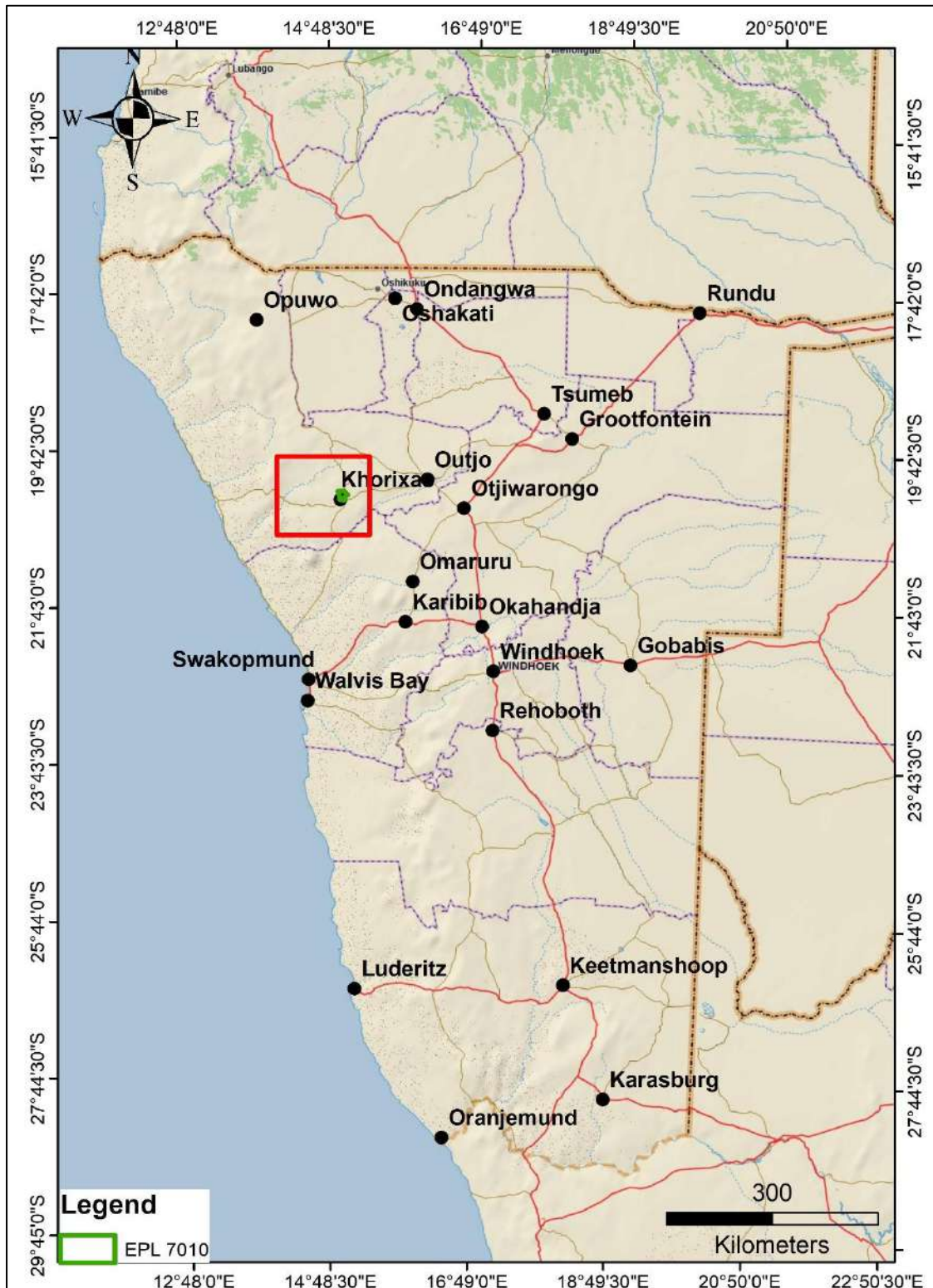


Figure 3 Locality map of the exclusive prospecting licence area

1.3 Infrastructure and Services

1.3.1 Electricity

At this stage, electricity requirements for the project are minimal. The bulk of the power supply to the exploration site will be sourced from the proponent's own generator. The power requirements for the proposed project will be minimal as power will only be required for the following activities:

- Emergency lighting.
- Powering small machinery during the mineral exploration process.
- Power supply for temporary office block or container if necessary.

1.3.2 Water Supply

The water requirements for the project are minimal. Water containers will be brought on site and utilised whenever necessary. The water will mostly be used for general consumption and cleaning. The water used for diamond drilling or RC drilling will be recycled.

1.3.3 Refuse and Waste Removal

The proponent will negotiate directly with all suppliers of consumables such as grease, oil etc. to remove these materials for disposal once they have been used and need to be discarded. The proponent will provide adequate temporary sanitary facilities and such facilities must be maintained in a hygienic condition. Sewerage will be disposed of in a manner not polluting the environment. The proponent will remove all refuse pertaining to the proponent's activities, domestic or otherwise, from the property. The Miner will undertake environmental rehabilitation, both during and at the conclusion of the mineral exploration operations.

1.3.4 IT Systems and Communication

If drilling commences, provision will be made for two-way radios to enable the drill rig operators and the on-site staff to communicate effectively.

1.3.5 Security and Fencing

No provision has been made for fencing although strict access to and from the exploration site will be facilitated by personnel.

1.3.6 Buildings

At this stage, no exploration camp will be set up and so provision will be made for prefabricated containers.

1.3.7 Roads

Access to the mineral exploration sites is limited as there are currently no convenient roads, except for 4x4 tracks. From Khorixas, the mineral exploration site will be accessed via the C35 road.

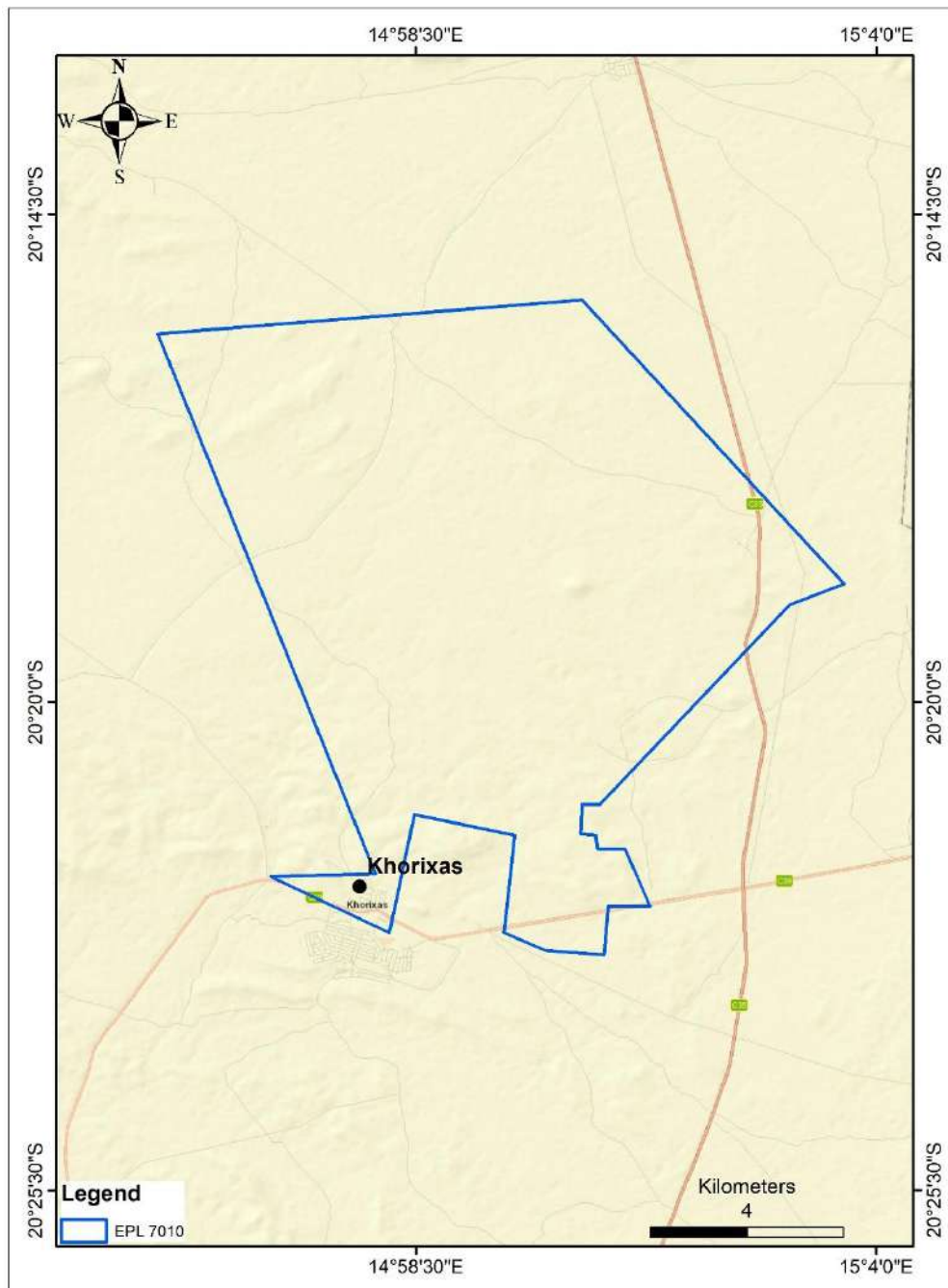


Figure 4 Topographic map showing the existing road network within the licence area.

1.3.8 Mobile Equipment

The proponent's vehicle fleet will be optimised during the next project phase. Provision will be made 4x4 vehicles and a drill rig.

1.3.9 Fuel Distribution, storage and supply

During the drilling phase, diesel will be delivered to the by road transport and offloaded into the vehicles by offloading pumps.

1.3.10 Storage of Lubrication and consumables

During the drilling phase, consumables and lubricants will be stored in a designated area within a container. These substances will only be used for mechanical purposes and are assumed to be non-hazardous.

1.3.11 Fire Fighting Provision

Portable fire-extinguishers will be fitted, as required, in vehicles and, as well as in the mobile containers where possible.

1.4 Environmental Impact Assessment Requirements

The Environmental Regulations procedure (GN 30 of 2012) stipulates that no mineral exploration activities may be undertaken without an environmental clearance certificate. As such, an environmental clearance certificate must be applied for in accordance with regulation 6 of the 2012 environmental regulations. It is imperative that the environmental proponent must conduct a public consultation process in accordance with regulation 21 of the 2012 environmental procedure, produce an environmental scoping report and submit an Environmental Management Plan for the proposed mineral exploration activities.

1.5 Purpose of the Scoping Report

The scoping report is prepared for the Environmental Impact Assessment for mineral exploration on an area which is located 2 km northeast of Khorixas. It covers the townland and communal area. Coordinates for the centre of the licence are - 20.358708 and 14.964366. Environmental scoping is a critical step in the preparation of an EIA for the proposed mineral exploration activities. The scoping process identifies the issues that are likely to be most important during the EIA and eliminates

those that are of little concern. The scoping process shall be concluded with the establishment of terms of reference for the preparation of an EIA, as set out by the Ministry of Environment and tourism. The purpose of this scoping report is to:

- Identify any important environmental issues to be considered before commencing with mineral exploration activities on the proposed mineral exploration sites.
- To identify appropriate time and space boundaries of the EIA study.
- To identify information required for decision-making.

As such, the key objectives of this scoping study are to:

- Inform the public about the proposed mineral exploration activities.
- Identify the main stakeholders, their comments and concerns.
- Define reasonable and practical alternatives to the proposal.
- To establish the terms of reference for an EIA study.

1.6 Terms of Reference

The approach and methodology taken was guided by the Environmental Regulations of 2012 and the Terms of Reference (ToR) which were provided by the proponent:

- Identify all legislation and guidelines that have reference to the proposed project.
- Identify existing environmental (both bio-physical and socio-economic) conditions of the area to determine their environmental sensitivity.
- Inform Interested and Affected Parties (I&APs) and relevant authorities of the details of the proposed development and provide them with a reasonable opportunity to participate during the process.
- Consider the potential environmental and social impacts of the development and assess the significance of the identified impacts.
- Compile a Scoping Report detailing all identified issues and possible impacts, stipulating the way forward and identifying specialist investigations, if required.

- Outline management and mitigation measures in an Environmental Management Plan (EMP) to minimize and/or mitigate potentially negative impacts.
- Submit the final scoping report to the competent authority and the Environmental Commissioner.

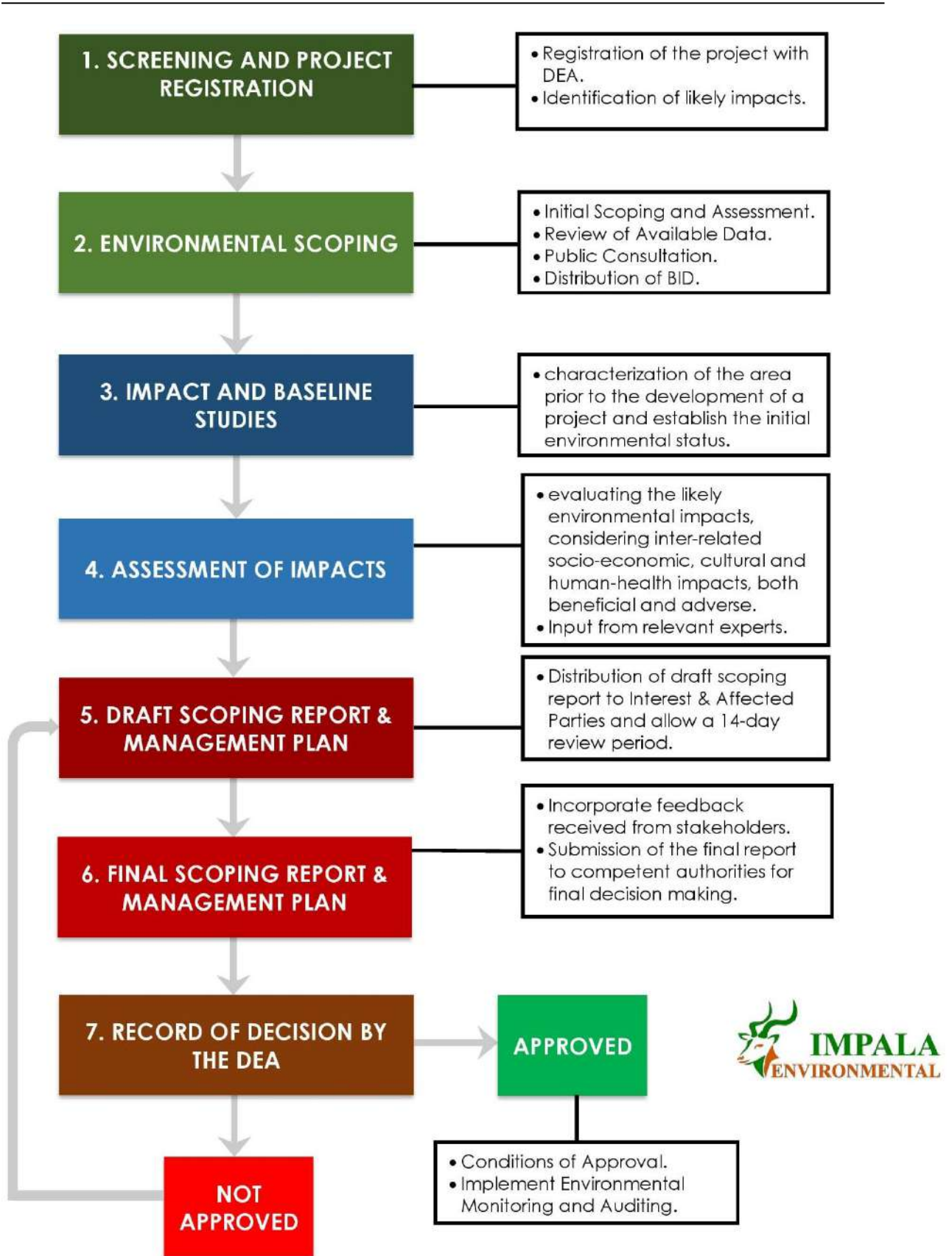


Figure 5 Flowchart of the Environmental Impact Assessment process followed in Namibia.

1.6.1 Environmental Assessment Approach and Methodology

Environmental assessment process in Namibia is governed by the Environmental Impact Assessment (EIA) Regulations No. 30 of 2012 gazetted under the Environmental Management Act, (EMA), 2007, (Act No. 7 of 2007) and in line with the provisions of the Cabinet approved Environmental Assessment Policy for Sustainable Development and Environmental Conservation of 1995.

This report has taken into consideration all the requirements for preparation of all the supporting documents and application for an Environmental Clearance Certificate and lodgement of such application to the Environmental Commissioner (EC), Department of Environmental Affairs (DEA) in the Ministry of Environment and Tourism (MET).

The purpose of the Scoping Phase was to communicate the scope of the proposed project to Interested and Affected Parties (I&APs), to consider project alternatives, to identify the environmental (and social) aspects and potential impacts for further investigation and assessment, and to develop the terms of reference for specialist studies to be conducted in the Impact Assessment Phase if necessary. The steps undertaken during the Scoping Phase are summarised below.

1.6.1.1 Project Initiation and Screening

The project registered on the online ECC portal (eia.met.gov.na) to provide notification of the commencement of the EIA process and to obtain clarity on the process to be followed.

1.6.1.2 Initial Scoping Public Participation Process

The objective of the public scoping process was to ensure that interested and affected parties (I&APs) were notified about the proposed project, given a reasonable opportunity to register on the project database and to provide initial comments. Steps that were undertaken during this phase are summarised below:

- **I&AP identification:** A preliminary I&AP database was compiled using the farmer's contact details that were obtained from the Ministry of Lands and contact details of other interested and affected parties that were provided by the proponent. Additional I&AP's were added to the database based on

responses to the advertisements and notification letters, as well as attendees to the various meetings.

- **Notification letter and Background Information Document (BID):** A notification letter and Background Information Document was distributed for review and comment for a period of 3-4 weeks after commencement of the project.
- **Advertisements and site notice:** Advertisements announcing the proposed project, the availability of the BID, public meetings and the I&AP registration / comment period were placed in two widely distributed newspapers for two consecutive weeks. Site notices were placed on the boundaries of farm fences and on the notice boards of the Regional Council.

Over and above the issues raised were incorporated into the scoping report. These submissions were collated and responded to as indicated in the public participation section of the scoping report.

1.6.1.3 Compilation and Review of Draft Scoping Report (DSR)

The DSR was prepared in compliance with Section 8 of the EIA Regulations of 2012 and incorporated with comments received during the initial Public Participation Process. The DSR was distributed for a 14-day review and comment period.

1.6.1.4 Final Scoping Report and Completion of the Scoping Phase

The Final Scoping Report (FSR) summarises the following: the legal and policy framework; approach to the EIA and process methodology; the project's need and desirability; proposed project activities; key characteristics of the receiving environment; and key issues of concern that will be further investigated and assessed in the next phase of the EIA.

The FSR complies with Section 8 of the EIA Regulations 2012. All written submissions received during the DSR review and comment period will be collated and responded to. The FSR was submitted to the competent authority. In terms of Section 32 of the Environmental Management Act, 2007 (No. 7 of 2007), the competent authority is then required to make a recommendation on the acceptance or rejection of the report to Ministry of Environment and Tourism (MET): Department of Environmental Affairs (DEA), who will make the final decision.

1.6.2 List of Specialist Studies Undertaken

Section 9(a) of the Environmental Regulations of 2012 requires a disclosure of all the tasks to be undertaken as part of the assessment process, including any specialist to be included if necessary.

The mineral exploration project has not commenced yet. This means that the proponent has not conducted any surface exploration activities (i.e. geophysical survey, geological mapping and geochemical sampling) to find anomalies and determine suitable targets which can be tested with drilling. As such, no field specific specialist studies were commissioned by the proponent as no specific target area has been delineated yet. Although specialist studies were deemed unnecessary for this environmental impact assessment due to low intensity and extent of the exploration activities at this stage, a heritage impact assessment study was undertaken for this project. Specialist studies conducted in the area, in previous years, have been reviewed as part of the scoping and assessment process of this project.

After the proponent successfully drills a delineated target, undertakes a feasibility study and confidently decides to proceed with mining, a full environmental impact assessment will be carried out with appropriate site-specific specialist studies on groundwater, air-quality, fauna, flora, archaeology and avifauna.

1.7 Need and Desirability.

1.7.1 Need of the Exploration Project

Mineral exploration companies play an important role in the development of a country's mineral resources. When minerals are mined, the company selling the product must pay a royalty to the government). The royalties are set by the government at a level that will encourage others to risk their capital in finding and developing these minerals, rather than the government risking taxpayer's money. This way the country can share in benefit of mineral resources without risking funds required for key everyday services to the community.

Namibia has a long tradition of mining. In 2018, mining contributed 14% of GDP and expanded 28%. In 2019, the mining industry contributed over 300 million dollars to government revenue. The whole industry contributed around 2.2 billion dollars to the national economy in the same period. However, a drop in diamond and uranium

production caused a contraction of 11,1%. Lower mineral commodity prices led to the declining expenditure on exploration. In 2019, the mining industry paid over 300 million dollars in wages and salaries and provided 16 324 direct jobs with 9 027 permanent employees. Temporary jobs figured out 800, while 6 515 were contractor jobs.

The exploration project may assist in helping Namibia attain some of the goals set out in National Development Plans such as the Fifth National Development Plan (NDP5) and the Harambee Prosperity Plan (HPP). During the exploration phase, the project will provide employment to at least 15 people from the surrounding towns and settlements. If the exploration project leads to the discovery of an economically viable mineral deposit, this may subsequently lead to the development of a mine within the area. A mine can significantly contribute to social-economic development around the surrounding community.

1.7.2 Alternatives

During the application of the exploration licence, no alternative sites were considered. The proposed exploration site has shown the potential to host a copper deposit.

1.7.2.1 Exploration Method Alternatives

Geophysical exploration, geochemical sampling and geological mapping methods will be used during the initial exploration period until a target is delineated. Thereafter, reverse circulation and diamond drilling methods will be employed to test the depth and extent of the mineralised rock units. If more modern, effective, and environmentally friendly exploration methods than the preferred ones are developed, such methods will be assessed and or considered.

1.7.2.2 No-Go Alternatives

The no-go alternative will mean that the current land activities such as farming and important vegetation species will not be disturbed, that is, there will not be disturbance of the flora and fauna.

No-go alternative will result in the non-exploration of minerals and bring benefications to the receiving environment. However, the no-go alternative is not considered since it will lead to negative socio-economic impacts.

2 Summary of applicable legislation

All mineral rights, related to mineral exploration activities in Namibia, are regulated by the Ministry of Mines and Energy whereas the environmental regulations are regulated by the Ministry of Environment and Tourism. The acts that affect the implementation, operation, and management of mineral exploration activities in Namibia are shown below.

2.1 Environmental Management Act of 2007

Line Ministry: Ministry of Environment and Tourism

The regulations that accompany this act lists several activities that may not be undertaken without an environmental clearance certificate issued in terms of the Act. The act further states that any clearance certificate issued before the commencement of the act (6 February 2012) remains in force for one year. If a person wishes to continue with activities covered by the act, he or she must apply for a new certificate in terms of the Environmental Management Act.

2.2 The Minerals Prospecting and Mining Act of 1992

Line Ministry: Ministry of Mines and Energy

The Minerals Prospecting and Mining Act No.33 of 1992 approves and regulates mineral rights in relation to exploration, reconnaissance, prospecting, small scale mining, mineral exploration, large-scale mining and transfers of mineral licences.

2.3 Water Resources Management Act of 2004

Line Ministry: Ministry of Agriculture, Water and Forestry

The act provides for the management, protection, development, usage and conservation of water resources; to provide for the regulation and monitoring of water resources and to provide for incidental matters.

2.4 Nature conservation ordinance, ordinance No. 4 of 1975

Line Ministry: Ministry of Environment and Tourism

The Nature Ordinance 4 of 1975 covers game parks and nature reserves, the hunting and protection of wild animals (including reptiles and wild birds), problem animals, fish,

and the protection of indigenous plants. It also establishes a nature conservation board. The basic set of regulations under the ordinance is contained in GN 240/1976 (OG 3556). The topics covered in the regulations include tariffs (game parks), regulations relating to game parks, swimming baths, use of boats in game parks, inland fisheries, keeping game and other wild animals in capturing. In addition, the ordinance also regulates game dealers, game skins, protected plants, birds kept in cages, trophy hunting of hunt-able game, hunting at night, export of game and game meat, sea birds, private game parks, nature reserves, regulations of wildlife associations and registers for coyote getters.

2.5 National Heritage Act, 2004 (Act No. 27 of 2004)

Line Ministry/Body: National Heritage Council

The National Heritage Act provides for the protection and conservation of places and objects of heritage significance and the registration of such places and objects; to establish a National Heritage Council; to establish a National Heritage Register; and to provide for incidental matters.

2.6 Petroleum Products and Energy Act No. 13 of 1990

Line Ministry/Body: Ministry of Mines and Energy

The act regulates the importation and usage of petroleum products. The act reads as “To provide measures for the saving of petroleum products and an economy in the cost of the distribution thereof, and for the maintenance of a price thereof; for control of the furnishing of certain information regarding petroleum products; and for the rendering of services of a particular kind, or services of a particular standard; in connection with motor vehicles; for the establishment of the National Energy Fund and for the utilization thereof; for the establishment of the National Energy Council and the functions thereof; for the imposition of levies on fuel; and to provide for matters incidental thereof”.

2.7 Forest Act, No. 12 of 2001

Line Ministry/Body: Ministry of Agriculture, Water and Forestry

The act regulates the cutting down of trees and reads as follows “To provide for the establishment of a Forestry Council and the appointment of certain officials; to consolidate the laws relating to the management and use of forests and forest produce; to provide for the protection of the environment and control and management of forest trees; to repeal the preservation of Bees and Honey proclamation 1923, preservation of Trees and Forests Ordinance, 1952 and the Forest Act, 1968; and to deal with incidental matters”.

The constitution defines the function of the Ombudsman and commits the government to sustainable utilization of Namibia’s natural resources for the benefit of all Namibians and describes the duty to investigate complaints concerning the over-utilization of living natural resources for the benefit of all Namibians and describes the duties to investigate complaints concerning the over-utilization of living natural resources, the irrational exploitation of non-renewable resources, the degradation and the destruction of ecosystem and failure to protect the beauty and character of Namibia. Article 95 states that “*the state shall actively promote and maintain the welfare of the people by adopting; inter-alia policies aimed at maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of natural resources on a sustainable basis for the benefit of all Namibians both present and future*”.

2.8 Atmospheric Pollution Prevention Ordinance 11 of 1976

Line Ministry/Body: Ministry of Health and Social Services

This ordinance provides for the prevention of air pollution and is affected by the Health Act 21 of 1988. Under this ordinance, the entire area of Namibia, with the exception of East Caprivi, is proclaimed as a controlled area for the purposes of section 4(1) (a) of the ordinance.

2.9 Hazardous Substance Ordinance, No. 14 of 1974

Line Ministry/Body: Ministry of Safety and Security

The ordinance provides for the control of toxic substances. It covers manufacture, sale, use, disposal and dumping as well as import and export. Although the

environmental aspects are not explicitly stated, the ordinance provides for the importing, storage and handling.

2.10 Namibian Water Corporation (Act 12 of 1997)

Line Ministry/Body: Namibian Water Corporation

The act caters for water rehabilitation of prospecting and mineral exploration areas, environmental impact assessments and for minimising or preventing pollution.

2.11 Public and Environmental Health Act, 2015

Line Ministry/Body: Ministry of Health and Social Services

provide a framework for a structured uniform public and environmental health system in Namibia; and to provide for incidental matters.

2.12 Agricultural (Commercial) Land Reform Act 6 of 1995

Line Ministry/Body: Ministry of Lands, Resettlement and Rehabilitation

To provide for the acquisition of agricultural land by the State for the purposes of land reform and for the allocation of such land to Namibian citizens who do not own or otherwise have the use of any or of adequate agricultural land, and foremost to those Namibian citizens who have been socially, economically or educationally disadvantaged by past discriminatory laws or practices; to vest in the State a preferent right to purchase agricultural land for the purposes of the Act; to provide for the compulsory acquisition of certain agricultural land by the State for the purposes of the Act; to regulate the acquisition of agricultural land by foreign nationals; to establish a Lands Tribunal and determine its jurisdiction; and to provide for matters connected therewith.

3 Description of Proposed Mineral exploration Project

3.1 Introduction

Copper is found in the earth's crust and the oceans although the amount in the latter is thought to be negligible, amounting to no more than about eight months mine production at present-day rates. The upper 10 kilometers of the crust is thought to contain an average of about 33 ppm of copper. For commercial exploitation, copper deposits generally need to be in excess of 0.5% copper, and preferably over 2%. The known reserves of higher-grade ore in the world amount to nearly 1 billion tons of copper. At the present rate of mine production, which is about 13.9 million tons (12.5 million metric tons) a year, known reserves of copper could be depleted in about 65 years. However, successful exploration for new mineral deposits, technological advances in mining and extractive metallurgy (which enable the exploitation of leaner ores, thereby enlarging the pool of known reserves) and copper uses (which permit copper to be used more sparingly where larger quantities were used in the past) and the continued recycling of scrap are likely to forestall indefinitely depletion of this valuable metal (Calcutt, 2001).

For example, in the first mile depth of the crust of the continents, it is estimated that there is 3×10^{18} metric tons of copper diffusely distributed. The relatively concentrated portion of this copper is only a small fraction of the whole, constituting an estimated 10^{10} metric tons in deposits with a grade of 0.25% or more. At current world mine production, this represents a million years' supply of copper theoretically available in the mineable portion of the earth's crust (Calcutt, 2001).

The barren rock, or gangue has to be separated from the sulphide minerals in order to smelt the metallic copper from the ore. By far the greatest proportion of copper is extracted from the sulphides of copper, iron and sometimes other metals. Such ores originate from sulfur-bearing volcanic magmas, which have separated into metal sulphides and siliceous melts. The copper has concentrated almost entirely into the sulphide fraction, and if this becomes separated from the siliceous melt it can become deposited in veins or in fissures in the host rock by hydrothermal or other geological activity. In many ores (and most of those found in the Western USA) the copper minerals occur as a dispersion of fine particles. Such ores are called porphyries. Where mineralized rocks become outcropped or shattered, the sulphide

minerals undergo chemical changes due to air, groundwater, and heat, giving rise to the other main variety of copper minerals - the oxidized ores. There is no shortage of copper resources. In fact, copper is one of the most abundant of the metallic elements in the earth's crust. The average estimated concentration is between 55 and 70 mg/kg, placing it below chromium (200 mg/kg) and zinc (132) but above tin and lead. Commercially exploited deposits of copper ores are found in many parts of the world, frequently associated with mountain-building processes (Calcutt, 2001).

3.2 Techniques for Mineral Exploration

3.2.1 Target Generation

Copper target generation involves certain stages, such as mapping, geochemical survey, geophysical survey, and remote sensing. Mapping includes development of the geological, topographical (base), geochemical, geophysical, and structural maps. Geological map focuses on identifying and mapping outcrops, describing mineralization and alteration zones, and making geological cross sections. In other words, it relies on the identification of rocks and minerals and the understanding of the environment in which they form. It aims to find what rock types occur at or close to the surface and how these rock types are related to each other, e.g., by defining their boundaries, ages, and structure. Topographical map, which is a base map, depicts the topographical features (contour, hill, stream, etc.). Geochemical map includes surface sample locations and results, including analyses of rock, silt, and soil samples. Geophysical map depicts the geology and results obtained from geophysical survey. Structural map shows the orientation data (strike, dip, type, etc.) of bedding planes, faults, folds, joints and other structural features. They are all gathered to be used for the interpretation in copper mineral exploration (Mentes, 2012).

3.2.1.1 Geochemical Survey

Geochemical survey is a kind of sampling method in mineral exploration and results in 'Assay' after laboratory works. Exploration geochemistry has evolved from its early origins using the chemistry of the environment surrounding a deposit in order to locate it. A wide variety of copper bearing rocks such as quartzites can be chemically analyzed in laboratory for this survey. In mineral exploration studies, geochemical methods involve the geochemical analysis of geological materials, including rock, soil, and stream sediment or silt sediment. In addition to these surface samples, any

materials obtained from drilling can be analyzed for the evaluation. The results of sampling may reveal patterns that point to the location of a potential copper deposit, which may be present either underground or at the surface. This survey provides physical results to be worked on for the further interpretation and is used for identifying geochemical anomalies, which are used for geochemical mapping (Mentes, 2012). During the first phase, the type of sampling methods that will be applied are soil sampling, stream sediment sampling, and bulk sampling.

3.2.1.2 Geophysical Survey

Geophysical survey focuses on measuring physical characteristics (e.g., magnetism, density, conductivity) of rocks at or near the Earth's surface and uses surface methods to measure these properties to designate a potential ore body. The measured values are then used to compare with the values and models of known copper deposits. The results obtained from this survey are gathered together to make a geophysical anomaly maps, which is a good way for evaluation.

3.2.1.3 Remote Sensing

Remote Sensing, which is also useful for copper exploration, is the collection of information about an object or area without being in physical contact with it. Data gathering systems used in remote sensing are photographs obtained from manned space flights or airborne cameras, and electronic scanner or sensors such as multispectral scanners in satellites or airplanes and TV cameras, all of which record data digitally. Aerial photography and satellites allow people to work with modern techniques. Aerial photography is used to sense the amount (quantity) of mineral in a particular area. The mineral exploration team collects information such as tracks, roads, fences, and habitation, as well as maps of outcrops, regolith, and vegetation cover across a region. Landsat image (satellite imagery) is used both for the visible light spectrum over mineral exploration (Mentes, 2012).

3.2.2 Target Drilling

Target drilling is the process whereby rigs or some operated tools are used to make boreholes to intercept an ore body. It can be done by contractors with more experienced operators. This method is used to obtain very detailed information about

rock types, mineral content, and rock fabric, and the relationships between rock layers close to the surface and those at depth. Then, subsurface geology in a area is evaluated after the results are obtained. That indicates if the potentially economic resources are present or not. In general, the purpose of drilling is to: determine the absence or presence of copper ore bodies, define the volume of and depth to the ore body; estimate reserve of ore body reservoir. Then, ore deposit is discovered before it is decided to be mined (Mentes, 2012). During the first exploration phase, RC Drilling and Diamond Drilling methods will likely be employed.

3.2.3 Resource Evaluation

It is an evaluation of tonnage (volume) and grade (concentration or weight percent) of the ore body. The volume is determined by using drill data to outline the deposit in the subsurface, and by using geometric models to calculate the volume. The grade is the average concentration determined from numerous assays of drill samples. The purpose of the resource evaluation is to understand the possibility to expand the known size of the deposit and mineralization. In this way, the economic standards of an ore body are obtained, which is needed for the next step. This step should give an information or idea about proceeding of mineral exploration activities. Resources at this work are determined during exploration and do not provide certain results of grade and tonnage. In order to get an exact size, quality of the commercial mineral, 'reserve definition', which is next step of mineral exploration studies, is used (Mentes, 2012).

3.2.4 Resource Definition

Reserve definition is important to transform a copper mineral resource into an economic asset, which is an ore reserve and find the answer if it is valuable or not. 'Reserve' is more intensive, technical, and well characterized term with its exact quality and size relative to 'Resource'. Also, reserve estimation may be changed over time because of the assessments during and after the mining. The main purpose of this stage is the making decision on the techniques just before extraction as a result of the results. It includes technical, economic evaluation, geotechnical assessment, and engineering studies of the rocks surrounding the deposit to determine the potential parameters of proposed open pit or underground mining methods. At the end of this process, a feasibility study is published, and the ore deposit is supposed either uneconomic or economic. At this stage, a decision is made whether to mine the

mineral deposit from the surface, called as 'open-pit mining', or by tunnelling, called as underground mining (Mentes, 2012).

3.3 Labour Requirements

The proponent intends to employ about 5-15 personnel, including 3 management staff for the first phase of the project. The employees will be sourced from the local community including people from Khorixas. All employees will undergo a safety induction, first aid training course and wildlife awareness program. The Labour Act of 2007 will always be adhered to.

4 Description of the Current Environment

4.1 Introduction

This section aims to document the present state of the environment, the likely impact of changes being planned and the regular monitoring to attempt to detect changes in the environment. As such, this area represents a high fauna diversity.

Namibia has four very large and arid regions which set them apart in various ways from the rest of the country; Kunene and Erongo region in the west and Karas and Erongo in the south (Mendelsohn, et al., 2002). Kunene Region occupies the north-west corner of Namibia. The Skeleton Coast Park forms its entire western boundary with the Atlantic Ocean. The Kunene River with its Epupa Falls forms an international boundary with Angola to the north. Nationally, Kunene is bordered by Omusati Region and the western boundary of Etosha National Park. In the south it forms the southern boundary of most of Etosha National Park and borders Erongo and Erongo regions. The region is home to the Skeleton Coast Park and many conservancies. Erongo is one of the central regions in Namibia with a size of 105,185 square kilometers, with vegetation ranging from open savanna around Khorixas, to lush vegetation and massive bright red sandstone cliffs.

There is generally an absence of fences in most parts of the Kunene Region. This makes livestock farming easier which means that both wild and domestic animals can move widely in many places, migrating from areas of poor grazing to other places with more abundant pastures.

4.2 Climatic Conditions

4.2.1 Temperature

In the mineral exploration area, November is the warmest month with an average temperature of 29°C at noon. June is the coldest month with an average temperature of 20°C at night. Khorixas, which is in the vicinity of the project area, has distinct temperature seasons, the temperature varies during the year.

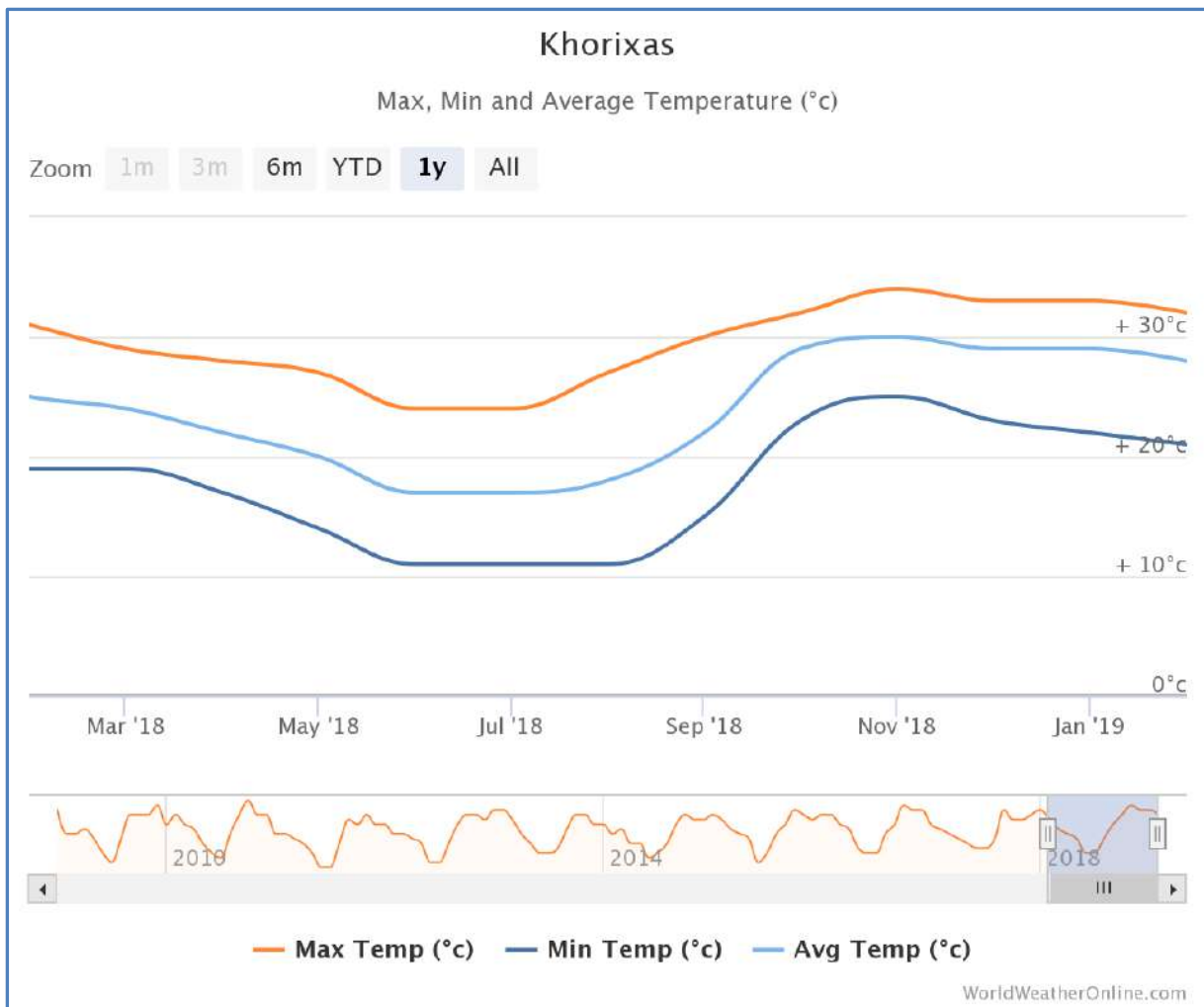


Figure 6 A graph showing the temperature patterns in Khorixas, from www.worldweatheronline.com

In winter, temperatures can get to below degrees centigrade. Overall, winters are mild in temperature, with coldest month most often being June.

4.2.2 Precipitation

In the mineral exploration area, the highest rainfall is usually experienced in January which may reach 132 mm with average rainfall days. In March months, rainfall may reach about 40 mm with average rainfall days. The graph below shows the rainfall patterns in the area.

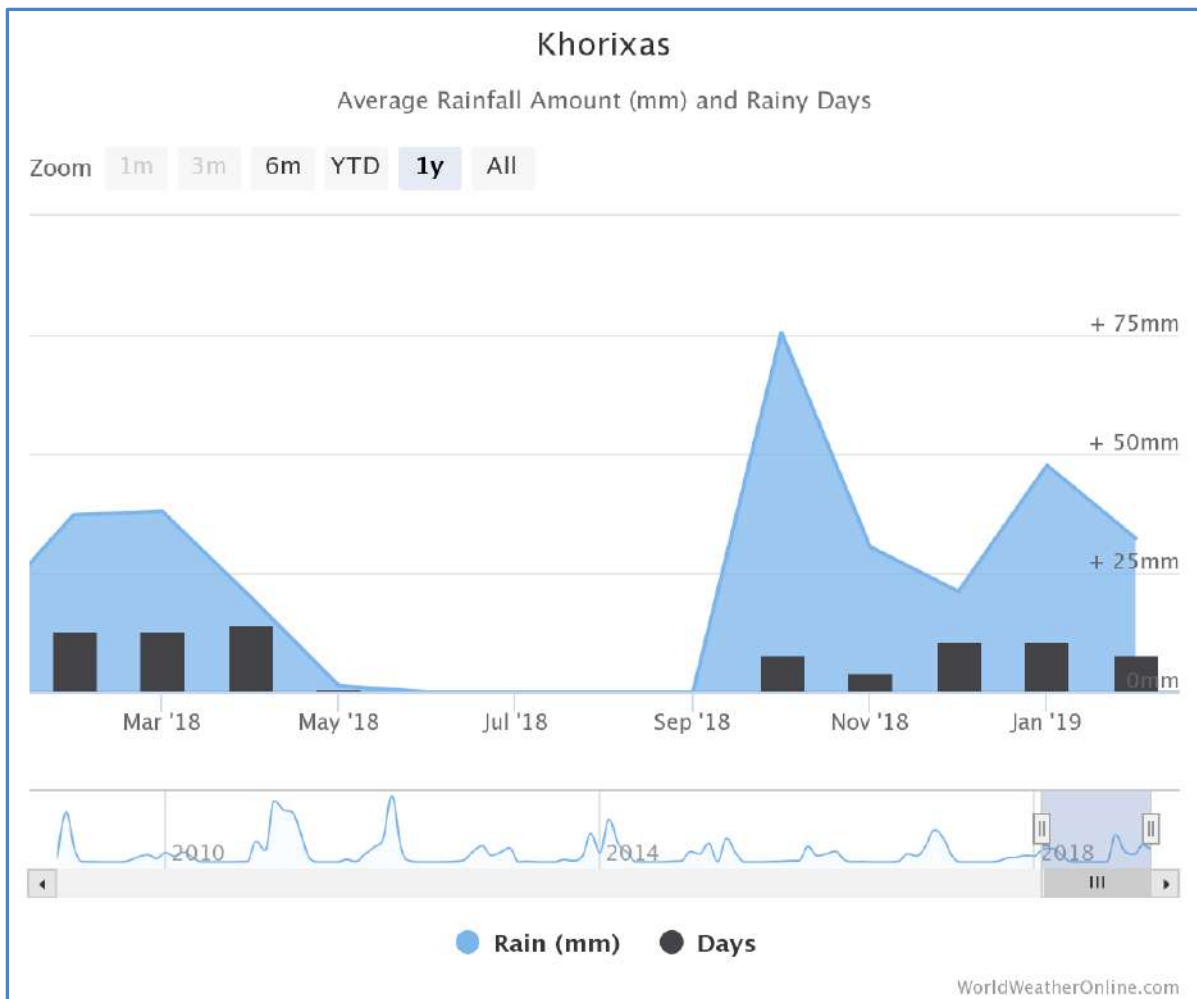


Figure 7 A graph showing rainfall patterns in Khorixas, from www.worldweatheronline.com

4.2.3 Wind

Predominantly easterly. Southerly, westerly, and northerly airflow are common. The Khorixas area is subject to erratic winds and considerable discrepancies despite short distances, due to the hilly terrain. The graph below depicts the wind patterns in the area. The highest wind speeds are attained in December as shown by the graph below.

4.2.4 Humidity

The relative humidity during the least humid months of the year, i.e., August and September, is around 16 % and the most humid month is January with 40% humidity. Namibia has a low humidity in general, and the lack of moisture in the air has a major impact on its climate by reducing cloud cover and rain and increases the rate of evaporation.

4.3 Air Quality

Activities around the exploration licence area mainly consist of tourism and small-scale livestock farming. Besides other exploration activities, there are no other industries or operating mines in the area or mines in the area. Probable sources of air pollution in the area are emissions and dust from vehicles travelling on gravel roads, dust generated by cattle grazing and wind erosion from the exposed areas.

PM₁₀ describes all particulate matter in the atmosphere with a diameter equal to or less than 10 µm and are generally emitted from motor vehicles (diesel engines) and burning of wood. PM_{2.5} describes all particulate matter in the atmosphere with a diameter equal to or less than 2.5 µm and are mostly related to combustion. NO₂ and nitric oxide (NO) are formed simultaneously in combustion processes and other high temperature operations such as blast furnaces. Sources of SO₂ include fossil fuel combustion from industry and power plants. SO₂ is emitted when coal or other biomass fuels are burnt for energy.

Data from accuweather.com shows that the air quality in the Khorixas area is generally excellent with an air quality index of 14 AQI. The ground-level ozone (O₃) is about 14 µg/m³ which is excellent. The fine particle matter levels (PM_{2.5}) are about 9 µg/m³. The particle matter (PM₁₀) is about 9 µg/m³. The nitrogen dioxide (NO₂), carbon monoxide (CO), and sulphur dioxide (SO₂) levels in the area are recorded to be 1 µg/m³.

4.4 Geology

The Geology of the area is underlain by Paleoproterozoic metamorphic rocks of the Huab Metamorphic Complex, which outcrop as an inlier of the Congo Craton surrounded by stratified rocks of the Damaran Orogen (Miller, 2008). The metamorphic basement was intruded at ca 750 Ma by alkaline silicate rocks and carbonatites of the Lofdal carbonatite complex. The complex comprises an early silicate intrusive assemblage of dominantly nepheline syenite, and a later carbonatite intrusive assemblage ranging from sovite through dolomitic and ankeritie carbonatite. The entire complex comprises a central intrusive core characterized by a number of plugs of nepheline syenite and carbonatite with associated diatreme breccias, surrounded by a wide area of dyking and associated hydrothermal alteration, in which phonolite and carbonatite dykes related to the intrusive plugs have exploited pre—existing

structures in the basement that were re-activated during Neoproterozoic tectonism. These carbonatite dykes are widely mineralized with rare earth elements. The total area affected by carbonatitic dykes and associated alteration and mineralization is more than 200 km² (Swinden & Siegfried, 2012)

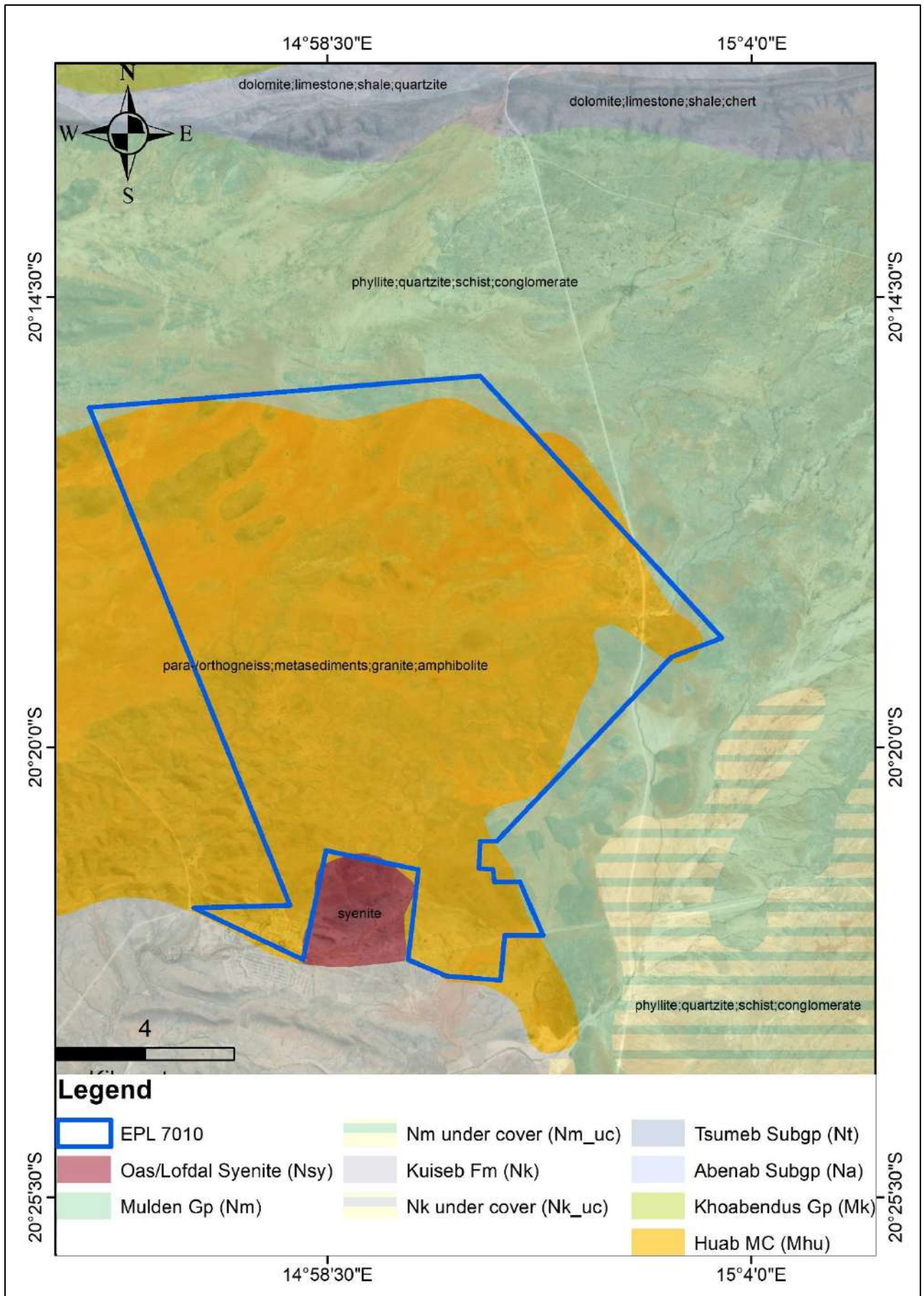


Figure 8 A geological map of the area

4.5 Hydrogeology and Water Resources

There are no major rivers that run through the licence area. The project area is underlain by rock bodies with minimal groundwater potential.

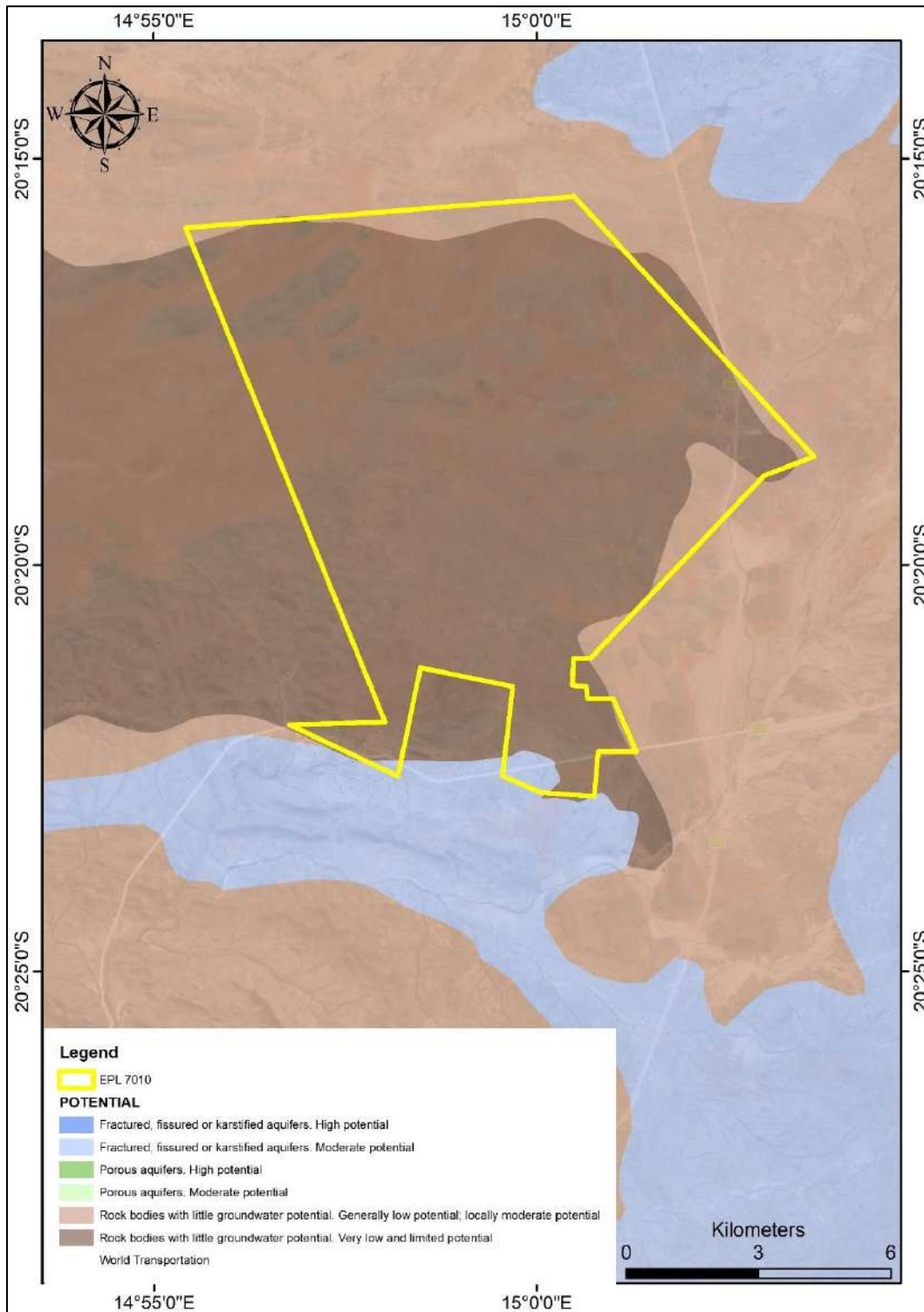


Figure 9 Groundwater potential map of the area.

4.6 Flora

Rainfall in the Kunene Region is usually both low and extremely variable which means that years of abundant rain often followed by extreme dry conditions (Mendelsohn, et al., 2002). In form, vegetation is generally sparse, with few trees and a thin variety of grass. Plant cover varies in relation to rainfall and so the eastern parts of Kunene have more grass and trees than the Western, coastal areas (Christian, 2005). The surrounding area is characterised by high botanical diversity. Based on the literature review, all the vegetation that are found within the vicinity of the area are of “medium” to “high” sensitivity against external conditions. The growing season is very short due to the semi-arid climate.

Grass is dependable on rainfall, which in-turn causes livestock and other animals to suffer during periods of minimal rainfall (Burke, 2003). The mineral exploration area, which is semi-arid, contains diverse vegetation species which include a number of species endemic to Namibia. Table 1 below lists the different plant species which are most likely to occur within the project area.

Table 1 A table showing plant species which are likely to occur in the area

SCIENTIFIC NAME	COMMON NAME	STATUS IN NAMIBIA
<i>Acacia erioloba</i>	Camel thorn	Protected
<i>Acacia mellifera</i>	Black thorn	Secure
<i>Acacia reficiens</i>	False umbrella thorn	Secure
<i>Acacia haematoxylon</i>	Grey camel thorn	Protected
<i>Acacia erubescens</i>	Blue thorn	Secure
<i>Acacia karroo</i>	Sweet thorn	Secure
<i>Acacia tortolis</i>	Umbrella thorn	Secure
<i>Acacia hereroensis</i>	False hook-thorn	Secure
<i>Commiphora tenuipetiolata</i>	White-stem corkwood	Secure
<i>Aloe littoralis</i>		Protected
<i>Ozoroa crassinervia</i>	Namibian resin tree	Near endemic, protected
<i>Boscia albitrunca</i>	Shepherd's tree	Protected
<i>Albizia anthelmintica</i>	Worm-bark false-thorn	Protected
<i>Ziziphus mucronata</i>	Buffalo-thorn	Protected
<i>Catophractes alexandri</i>	Trumpet thorn	Secure
<i>Combretum apiculatum</i>	Red bush willow	Secure
<i>Commiphora dinteri</i>		Endemic
<i>Commiphora glandulosa</i>	Tall common corkwood	Secure
<i>Commiphora glaucescens</i>	Blue-leaved corkwood	Nearendemic
<i>Croton gratissimus</i>	Lavender fever-berry	Secure
<i>Cyphostemma bainesii</i>		Endemic, protected

<i>Dichrostachys cinerea</i>	Sickle bush	Secure
<i>Diospyros lycioides</i>	Blue bush	Secure
<i>Dombeya rotundifolia</i>	Common wild pear	Endemic
<i>Ehretia alba</i>		Secure
<i>Elephantorrhiza suffruticosa</i>		Secure
<i>Euclea pseudebenus</i>	Ebony tree	Protected
<i>Euclea undulata</i>	Common guarri	Secure
<i>Euphorbia guerichiana</i>	Western woody milk bush	Secure
<i>Euphorbia virosa</i>		Secure
<i>Ficus cordata</i>	Namaqua fig	Protected
<i>Ficus ilicina</i>	Laurel fig	Secure
<i>Ficus sycomorus</i>	Common cluster fig	Protected
<i>Grewia bicolor</i>	White raisin	Secure
<i>Grewia flava</i>	Velvet raisin	Secure
<i>Grewia flavescens</i>	Sand paper raisin	Secure
<i>Gymnosporia senegalensis</i>	Red spike-thorn	Secure
<i>Ipomoea adenioides</i>		Secure
<i>Lycium bosciifolium</i>		Secure
<i>Lycium cinereum</i>		Secure
<i>Lycium eenii</i>		Secure
<i>Lycium hirsutum</i>		Secure
<i>Lycium villosum</i>		Secure
<i>Maerua juncea</i>		Secure
<i>Maerua schinzii</i>	Ringwood tree	Protected
<i>Manuleopsis dinteri</i>		Endemic
<i>Melianthus comosus</i>		Secure
<i>Obetia carruthersiana</i>		Near endemic
<i>Pechuel-Loeschea leubnitziae</i>		Secure
<i>Sterculia africana</i>	African star-chestnut	Protected
<i>Tarchonanthus camphoratus</i>		Secure
<i>Tetragonia schenckii</i>		Secure
<i>Vernonia cinerascens</i>		Secure
<i>Searsia (Rhus) ciliata</i>		Secure
<i>Searsia (Rhus) lancea</i>	Karree	Protected
<i>Searsia (Rhus) marlothii</i>		Secure

The density of vegetation in the vicinity of the mineral exploration site is sparse. Every effort will be made to protect the existing trees and shrubs, as these are very important to the ambience and visual appeal of the mineral exploration site. A vegetation expert will be consulted throughout the lifecycle of the mineral exploration program. The protected plant species in the project area are shown in the table below.

Table 2 Table of plant species which are protected under the Forestry Act and likely to occur in the area.

SCIENTIFIC NAME	COMMON NAME
<i>Acacia erioloba</i>	Camel thorn
<i>Acacia haematoxylon</i>	Grey camel thorn
<i>Albizia anthelmintica</i>	Worm-bark false-thorn
<i>Boscia albitrunca</i>	Shepherd's tree
<i>Euclea pseudebenus</i>	Ebony tree
<i>Ficus cordata</i>	Namaqua fig
<i>Ficus sycomorus</i>	Common cluster fig
<i>Maerua schinzii</i>	Ringwood tree
<i>Ozoroa crassinervia</i>	Namibian resin tree
<i>Searsia (Rhus lancea)</i>	Karree
<i>Sterculia Africana</i>	African star-chestnut

4.7 Fauna

4.7.1 Introduction

The information is based on a detailed literature review and a site visit which was carried out. The purpose of the Fauna literature review is to identify all potential amphibians, reptiles, and mammals expected on the project area and the surrounding farms in the vicinity of the mineral exploration area. The proposed mineral exploration area supports numerous faunal species but there are no species that are exclusive to the study area.

Larger types of animals such as zebras, giraffes, and lions are rare in this area. There are no species which are exclusively endemic to the exploration area. Based on literature review, development of a mineral exploration project in the area will not have a negative impact on any of the species in the project area.

4.7.2 Amphibians

Based on the literature review, there are generally 14 types of amphibian species that occur in project area. Nine of these amphibian species occur abundantly, two occur rarely and six of them occur uncommonly. Griffin (1998) highlighted that amphibian species are declining throughout the world due to various factors such as climate

change and habitat destruction. There are approximately 4000 species of amphibians worldwide of which over 200 species are present in Southern Africa and 57 in Namibia (Griffin, 1998). However, this low figure may be due to the lack of detailed studies carried out on amphibians. The table below shows the different amphibian species that are likely to occur within the study area.

Table 3 A list of amphibian species which may occur in the project area

SCIENTIFIC NAME	COMMON NAME	STATUS	OCCURRENCE	REFERENCE
PLATANNAS				
<i>Xenopus laevis</i>	COMMON PLATANNA	SECURE	ABUNDANTLY	(Daudin, 1802)
TOADS				
<i>Breviceps adpersus</i>	BUSHVELD RAIN FROG	SECURE	ABUNDANTLY	Peters, 1882
<i>Bufo dombensis</i>	DOMBE DWARF TOAD	ENDEMIC & INADEQUETLY KNOWN	ABUNDANTLY	Bocage, 1895
<i>Bufo poweri</i>	MOTTLED TOAD	SECURE	ABUNDANTLY	Hewitt, 1935
FOSSORIAL FROGS				
<i>Phrynomantis affinis</i>	SPOTTED RUBBER FROG	AMBIGUOUS (RARE?)	RARELY	(Boulenger, 1901)
<i>Phrynomantis bifasciatus</i>	BANDED RUBBER FROG	SECURE	ABUNDANTLY	(Smith, 1848)
SAND FROGS, BULLFROGS, RIDGED FROGS, CACOS, PUDDLE FROGS etc.				
<i>Cacosternum boettgeri</i>	COMMON CACO	SECURE	ABUNDANTLY	(Boulenger, 1882)
<i>Hildebrandtia ornata</i>	ORNATE FROG	SECURE	UNCOMMONLY	(Peters, 1878)
<i>Phrynobatrachus mababiensis</i>	MABABE PUDDLE FROG	SECURE	UNCOMMONLY	FitzSimons, 1932
<i>Phrynobatrachus natalensis</i>	SNORING PUDDLE FROG	SECURE	UNCOMMONLY	(A. Smith, 1849)
<i>Pyxicephalus adpersus</i>	GIANT BULLFROG	SECURE	ABUNDANTLY	Tschudi, 1838
<i>Tomopterna krugerensis</i>	KNOCKING SAND FROG	SECURE	RARELY	Passmore et al, 1975
<i>Tomopterna tandyi</i>	TANDY'S SAND FROG-	SECURE	ABUNDANTLY	Channing et al, 1996

TREE FROGS, REED FROGS & KASSINAS				
<i>Kassina senegalensis</i>	BUBBLING KASSINA	SECURE	ABUNDANTLY	(Dumèril et al, 1841)

4.7.3 Mammals

Based on the literature review, there are generally about 68 species of mammals expected to occur within the immediate area. There are generally 25 species which rarely occur, 2 species that occur seasonally, 4 that occur occasionally, and 33 that occur abundantly within the project area. Considering the relative size of the mineral exploration area, the mammal fauna will not be affected by the mineral exploration activities of the proponent. Namibia is seemingly well endowed with mammal diversity with around 250 species known to be present within the country (Griffin, 1998). There are currently 14 mammal species which are considered to be endemic to Namibia, including 11 species of rodents and small carnivores which are not well known. Griffin (1998), points out that most of these endemic mammals are associated with the Namib and Escarpment with 60% of these appearing to be rock-dwelling species. The author, Griffin (1998) further highlights that the endemic mammal fauna is best characterized by the endemic rodent family *Petromuridae* (Dassie rat) and the rodent genera *Gerbillurus* and *Petromyscus*. The table below shows the mammal species which are likely to occur within the study area. A full list, of mammal species that are likely to occur within the area, is in the appendix section at the end.

Table 4 Mammal species which are likely to occur within the project area.

SCIENTIFIC NAME	COMMON NAME
<i>Acinonyx jubatus</i>	Cheetah
<i>Antidorcas marsupialis</i>	Springbok
<i>Atelerix frontalis angolae</i>	Southern African Hedgehog
<i>Canis mesomelas</i>	Black-backed Jackal
<i>Caracal caracal</i>	Caracal
<i>Crocuta crocuta</i>	Spotted Hyena
<i>Cynictis penicillata</i>	Yellow Mongoose
<i>Equus zebra hartmannae</i>	Hartmann's Mountain Zebra
<i>Felis nigripes</i>	Black-footed Cat
<i>Felis silvestris/lybica</i>	African Wild Cat
<i>Galerella sanguinea</i>	Slender Mongoose
<i>Genetta genetta</i>	Small Spotted Genet
<i>Ictonyx striatus</i>	Striped Polecat
<i>Lepus capensis</i>	Cape Hare Secure

<i>Lepus saxatilis</i>	Scrub Hare
<i>Manis temminckii</i>	Ground Pangolin
<i>Mellivora capensis</i>	Honey Badger/Ratel
<i>Oreotragus oreotragus</i>	Klipspringer
<i>Oryx gazella</i>	Gemsbok
<i>Otocyon megalotis</i>	Bat-eared Fox
<i>Panthera pardus</i>	Leopard
<i>Parahyaena (Hyaena) brunnea</i>	Brown Hyena
<i>Phacochoerus africanus</i>	Common Warthog
<i>Proteles cristatus</i>	Aardwolf
<i>Raphicerus campestris</i>	Steenbok
<i>Suricata suricatta marjoriae</i>	Suricate
<i>Sylvicapra grimmia</i>	Common Duiker
<i>Tragelaphus strepsiceros</i>	Greater Kudu
<i>Vulpes chama</i>	Cape Fox

4.7.4 Reptiles

The literature review showed that there are approximately 60 reptile species that are expected to occur in the site area. According to the Namibia Conservation Ordinance of 1975, there are four reptile species protected, namely:

Table 5 Protected reptile species in the project area

SCIENTIFIC NAME	COMMON NAME	STATUS
<i>Psammobates Oculiferus</i>	Kalahari Tent Tortoise	Protected
<i>Python Natalis</i>	Southern African Python	Protected
<i>Geochelone Pardalis</i>	Leopard Tortoise	Protected
<i>Varanus Albigularis</i>	Veld Leguaan	Protected

Griffin (1998) highlighted the presence of 261 species of reptiles which are present in Namibia. These reptiles make up 30% of the reptile species found on the continent. 55 species of Namibian Lizards are classified as endemic (Griffin, 1998). The author, Griffin (1998), describes that more than 60% of the reptiles found in Namibia are protected by the conservation Ordinance. Although mineral exploration activities do affect reptile habitat, the project will not have any significant impact on the reptile species within the proposed mineral exploration area. Namibia, with 129 species of lizards, has one of the continent's richest lizard Fauna. The table in the appendix shows the reptile species which are likely to occur within the vicinity of the mineral exploration area.

4.8 Avifauna (Birds)

Simmons et al (2003) points that although Namibia's Avifauna is comparatively sparse compared to the high rainfall equatorial areas elsewhere in Africa, approximately 658 species have already been recorded with a diverse unique group of arid endemics. There are approximately 650 species of birds that have been recorded in Namibia, although the country's avifauna is comparatively sparse compared to the high rainfall equatorial areas in Africa (Brown & Lawson, 1989). Brown et al (1989) mentions that 14 species of birds are endemic or near endemic to Namibia with the majority of Namibian endemics occurring in the Savannah of which ten species occur in a north-south belt of dry Savannah in Central Namibia. Simmons (2003) recorded 63 species of birds within the vicinity of the project area. 650 bird species are recorded in Namibia, of which 160 species are present in area, especially after good rains fall (Christian, 2005). These birds consist of raptors, chats, larks and karoid species. Christian (2005) recorded the presence of the following bird species in the vicinity of the area, which include:

Table 6 Bird species which are likely to occur within the site area.

SCIENTIFIC NAME	COMMON NAME
Agapornis roseicollis	Rosy-faced Lovebird
Eupodotis rueppellii	Rüppell's Korhaan
Lanioturdus torquatus	White-tailed Shrike
Parus carpi	Carp's Tit
Phoeniculus damarensis	Violet Wood-Hoopoe
Poicephalus rueppellii	Rüppell's Parrot
Pternistis hartlaubi	Hartlaub's Spurfowl
Tockus damarensis	Damara Hornbil
Tockus monteiri	Monteiro's Hornbill

A full list of bird species within the area is shown in the appendix.

4.9 Archaeology and Heritage Sites

A separate heritage study is annexed to this report.

4.10 Socio-Economic Environment

4.10.1 Demographics of Khorixas

Khorixas is a town of 6,000 inhabitants in southern Kunene Region, Namibia. It was the capital of the Damaraland bantustan before Namibia's independence. It is the administrative capital of Khorixas Constituency. Most of the inhabitants are from the Damara ethnic group. The town is located near to an important deposit of petrified wood and the Twyfelfontein valley, known for its rock art.

The regional hospital and some other regional offices are still located in Khorixas, though the capital of Kunene Region is Opuwo. There are six schools and one branch of University of Namibia (UNAM) in Khorixas, Versteendewoud is the biggest primary school and Cornelius Goreseb High School is the biggest secondary school. Other schools are: Eddie Bowe Primary School, Welwitchia Primary School, and Welwitchia Junior Secondary School.

Khorixas suffers from a lack of economic development and employment opportunities, which leads to frustration and outward migration among many of the town's youth. The unemployment rate in town is estimated to be around 70%. Donkerhoek (Afrikaans: dark corner), the town's informal settlement, has neither water nor electricity. Khorixas has a landing strip nine kilometers east of town parallel to the main road C39. The Runway Numbers are 09/27 and elevation is 3320 feet.

Khorixas is governed by a town council that has seven seats. Due to its location in former Damaraland, the ethnically Damara-based United Democratic Front (UDF) has strong support in the population. Unlike in most other constituencies of Namibia, the ruling SWAPO party had until 2015 never won in Khorixas.

4.10.2 Social Economic Impact

Although people (including communal farmers) and animals might be negatively affected by dust and noise, the explorer will ensure that these aspects are properly mitigated. With the potential employment of 20 people, this means that 20 families will benefit from the project during the exploration phase. The project has great potential to improve livelihoods and contribute to sustainable development within the surrounding community. Community meetings will be held from time to time by the

proponent wherever possible, with the purpose of effectively communicating with the local community and to avoid any unexpected social impacts.

5. Assessment of Impacts

The purpose of this assessments of impacts section is to identify and consider the most pertinent environmental impacts and to provide possible mitigation measures that are expected from the mineral exploration activities on EPL 7010. Two different phases are associated with the proposed development. Firstly, the target generation (mapping and sampling) phase, and secondly the drilling phase are being covered by this assessment. Should the mineral exploration activities cease in the future, an EIA will need to be conducted to deal with the associated changes to environment. Mitigation measures for the identified impacts are also provided in this Section.

The following assessment methodology was used to examine each impact identified:

Table 7 Assessment methodology used to examine the impacts identified.

Evaluation Criteria	Symbol	Significance of Rating
Nature of impact:	P or N	Effect the proposed activity would have on the affected environment which is positive (P) or negative (N)
Extent of impact:	O	On-Site (the site and it's immediate surrounds)
	L	Local (Mineral exploration Area)
	R	Regional (Kunene Region)
	N	National (Namibia)
	I	International
Duration of impact:	SD	Short Duration (0 to 5 years)
	MD	Medium Duration (5 to 15 years)
	LD	Long Duration (lifetime of the development)
Intensity of impact:	L	Low intensity where the natural, cultural and social functions and processes are not affected.
	M	Medium intensity where the affected environment is altered but natural, cultural and social functions and processes can continue.
	H	High intensity where the affected environment is altered to the extent that natural, cultural and social functions and processes will temporarily or permanently cease.
Probability of impact:	LP	Low probability is when the possibility of the impact occurring is low.
	P	Probable is when there is a distinct possibility that it will occur.
	HP	Highly probable is when the impact is most likely to occur.
	D	Definite where the impact will occur.
Significance of Impact: Further subdivided into impacts with mitigation (MM) measures and impacts with no mitigation measures (NMM).	L	Low Significance is when natural, cultural, social and economic functions and processes are not affected. If the impacts are adverse, mitigation is either easily achieved or little will be required, or both. If impacts are beneficial, alternative means of achieving this benefit are likely to be easier, cheaper, more effective and less time-consuming

	M	Medium Significance is when the affected environment is altered but natural, cultural, social and economic functions and processes can continue. An impact exists but is not substantial in relation to other impacts that might take effect within the bounds of those that could occur. In the case of beneficial impacts, other means of achieving this benefit are about equal in time, cost and effort.
	H	High Significance is when the affected environment is altered to the extent that natural, cultural, social and economic functions and processes will temporarily or permanently cease. If impacts are adverse, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time consuming or a combination of these. In the case of beneficial impacts, the impact is of a Substantial order within the bounds of impacts that could occur.

5.1. Overall socio-economic benefits and issues

5.1.1. Socio-economic benefits

With the potential employment of 15 people, this means that 15 families will benefit from the project during the exploration phase. The project has great potential to improve livelihoods and contribute to sustainable development within the surrounding community. Community meetings will be held from time to time by the proponent wherever possible, with the purpose of effectively communicating with the local community and to avoid any unexpected social impacts.

5.1.1.1. Potential Direct Benefits

Direct capital investment: The mineral exploration project will require a significant capital investment of at least N\$ 10 million. This will be used for mapping, sampling and drilling.

Stimulation of skills transfer: Due to the nature of mineral exploration projects, the proponent will implement ad-hoc training programme for some of its staff members. Training programmes will be well structured and staff members will permanently benefit from these training programmes.

Job creation: With the potential employment of 20 people, this means that 20 families will benefit from the project during the on-going phase. The project has a great potential to improve livelihoods and contribute to sustainable development within the surrounding community.

5.1.1.2. Potential Indirect Benefits

- The data generated from the exploration programme will be made available to the Ministry of Mines and Energy for future research purposes.
- General enhancement of the health conditions and quality of life for a few people in the surrounding settlements.
- Of significance is the prospect of diversification of the surrounding economy, which is presently mainly focussed on small-scale farming and small-scale mining of semi-precious stones.

5.1.1.3. General socio-economic concerns

Notwithstanding the above benefits there are a few concerns that could reduce or counteract the above benefits related to the project, as follows:

- As the movement of staff and contractors to and from the area increases, the risk of spread of HIV/AIDS increases.
- Increased influx of people to the area as people come in search of job opportunities during the target generation and drilling phase of the mineral exploration project; and
- Increased informal settlement and associated problems.

Table 8 Impact evaluation for socio-economy

Identified Impact	Significance		Duration	Extent	Intensity	Probability
	NMM	MM				
Increased spread of HIV/AIDS	M	L	LD	N	M	LP
Increased influx of people to the area	L	L	SD	L	L	P
Increased informal settlement in the area	M	L	MD	L	L	LP

5.2. Mineral Exploration phases and associated issues

5.2.1. Mapping and Geochemical Sampling Phase of the Project

The following potential effects on the environment during the target generation phase of the mineral exploration project have been identified:

5.2.1.1. Dust

Dust may be generated during this phase and might be aggravated during the winter months when strong winds occur. Dust will be generated by the vehicles moving in the area. Fall out dust settling on vegetation is likely to cause local disruptions in herbivorous and predatory complexes and should be minimised as far as possible.

5.2.1.2. Noise

Noise will most likely be generated by vehicles during the target generation phase. It is recommended that vehicle movement be limited to normal daytime hours to allow nocturnal animals to roam freely at night.

5.2.1.3. Safety and Security

During mapping and sampling, small tools and equipment will be used on site. This increases the possibility of injuries and the responsible manager must ensure that all staff members are briefed about the potential risks of injuries on site. The manager is further advised to ensure that adequate emergency facilities, including first aid kits, are available on site. All Health and Safety standards specified in the Labour Act should be complied with.

Should a camp be necessary at a later stage, it should be in such a way that it does not pose a risk to the community members and wildlife that roam the area.

5.2.1.4. Visual

The proposed exploration area is situated more than 1 km from any main road. As such, any visual impact that might be caused by the exploration team are minimal. In some parts of the area, the topography of the mineral exploration site is slightly elevated.

Table 9 Impact evaluation for the target generation phase of the project

Identified	Significance		Duration	Extent	Intensity	Probability
	NMM	MM				
Impact						
Dust	L	L	SD	L	L	P
Noise	M	L	SD	L	M	D
Safety & Security	L	L	SD	O	L	P
Visual	L	L	MD	O	L	LP

5.2.2. Drilling Phase of the Project

During the operation phase of the project, a few holes will be drilled into the orebody. For the purpose of conveniently refuelling company vehicles without driving long distances, a small portable fuel storage tank will be brought on site.

5.2.2.1. Air Quality

In terms of air quality, emissions will be given off by 4x4 vehicles and the drill rig but not to an extent that warrants concern. Dust will also be produced by the drill rig and the movement of vehicles in the area.

5.2.2.2. Fire and Explosion Hazard

Hydrocarbons are volatile under certain conditions and their vapours in specific concentrations are flammable. If precautions are not taken to prevent their ignition, fire and subsequent safety risks may arise.

All fuel storage and handling facilities in Namibia must however comply with strict safety distances as prescribed by SANS 10089. SANS 10089 is adopted by the Ministry of Mines and Energy as the national standard.

It must further be assured that enough water is available for fire firefighting purposes. In addition to this, all personnel must be sensitised about responsible fire protection measures and good housekeeping such as the removal of flammable materials including rubbish, dry vegetation, and hydrocarbon-soaked soil from the vicinity of the exploration area. Regular inspections should be carried out to inspect and test firefighting equipment and pollution control materials at the drilling site.

All fire precautions and fire control at the site must be in accordance with SANS 10089-1:1999, or better. A holistic fire protection and prevention plan is needed.

Experience has shown that the best chance to rapidly put out a major fire, is in the first 5 minutes. It is important to recognise that a responsive fire prevention plan does not solely include the availability of firefighting equipment, but more importantly, it involves premeditated measures and activities to timeously prevent, curb and avoid conditions that may result in fires. An integrated fire prevention plan should be drafted before drilling.

5.2.2.3. Generation of Waste

Solid waste be generated from contractors, staff members and other visitors to the area. Care should be taken when handling waste material.

The types of waste that could be generated during operation include hazardous industrial waste (e.g. lubricants), general industrial waste (e.g. scrap material), and domestic waste (e.g. packaging). The waste will be temporarily handled and stored on site before being removed for final disposal at permitted waste disposal facilities. A registered Waste Management Company would be contracted to remove all hazardous waste from the exploration site. Ablution facilities will use chemical toilets and/or sealed septic tanks and the sewerage taken to the Khorixas periodically. No waste will be discharged on site.

5.2.2.4. Health and Safety

The drilling programme operations can cause serious health and safety risks to workers on site. Occupational exposures are normally related to the dermal contact with fuels and inhalation of fuel vapours during handling of such products. For this reason, adequate measures must be brought in place to ensure safety of staff on site, and includes:

- Proper training of operators.
- First aid treatment.
- Medical assistance.
- Emergency treatment.
- Prevention of inhalation of fumes.
- Protective clothing, footwear, gloves, and belts; safety goggles and shields.
- Manuals and training regarding the correct handling of materials and packages should be in place and updated as new or updated material safety data sheets becomes available.
- And Monitoring should be carried out on a regular basis, including accident reports.

5.2.2.5. Fauna

Mineral exploration activities may have minor disturbances on the habitat of a few

species but no significant impacts on the animals are expected. The proponent shall ensure that no animal shall be captured, killed, or harmed by any of the employees in any way. Wildlife poaching will strongly be avoided as this is an offence and anyone caught infringing in this regard will face suspension from the project and will be liable for prosecution.

5.2.2.6. Vegetation

The natural vegetation is seemingly undisturbed in the project area except for grasses, which have been grazed by livestock and wild animals. Some vegetation species in the area may be adversely impacted by the project. The type of vegetation that might be affected by the project are:

- Bushes
- Ephemeral grasses
- Small trees

Some of the sensitive vegetation types in the area include:

- Shallow drainage line vegetation
- Scrublands surrounding the mineral exploration area

Certain species regarded as particularly important for conservation may yet be identified and made known via an Addendum to this report. If particularly important species are found, they will be located by GPS and their locations communicated to the Ministry of Environment and Tourism. Such locations will then be demarcated and completely avoided.

5.2.2.7. Avifauna

Birds or Nest sites will not be disturbed by any employee, tourist or contractor. Should the employees observe any bird nesting sites for vultures, they will be reported to the Ministry of Environment and Tourism and the site will be avoided.

5.2.2.8. Alien Invasive Plants

Disturbance to the natural environment often encourages the establishment of alien

invasive weed species. Some of the plant species that could become invasive in the area are listed below:

- *Prosopis glandulosa*
- *Lantana camara*
- *Cyperus esculentus*
- *Opuntia imbricate*
- *Cereus jamacara*
- *Melia azedarach*

There are numerous ways in which invasive species can be introduced deliberately or unintentionally.

5.2.2.9 Heritage Impacts

Although no archaeological sites have been identified yet in the project area, appropriate measures will be undertaken upon discovering any new archaeological sites. All archaeological remains are protected under the National Heritage Act (2004) and will not be destroyed, disturbed, or removed. The Act also requires that any archaeological finds be reported to the Heritage Council Windhoek.

Table 10 Impact evaluation for the operational phase of the project

Identified Impact	Significance		Duration	Extent	Intensity	Probability
	NMM	MM				
Air Quality	M	L	LD	L	M	HP
Fire & Explosion Hazard	H	M	SD	O	M	LP
Generation of waste	M	L	LD	O	L	D
Health and Safety	H	M	MD	N	L	P
Fauna	M	L	MD	L	M	D
Vegetation	M	L	MD	L	M	D
Avifauna	M	L	MD	L	M	LP
Alien Invasive Plants	M	L	MD	L	M	P
Heritage	M	L	LD	O	H	LP

5.2.2.10 Groundwater Impacts

Mineral exploration activities may affect the availability of water and the quality thereof. exploration works may affect the water availability for deep rooted trees in riverbeds. Surface water for animals may be affected by mineral exploration activities. In rare

instances, the quality of the groundwater for water consumption may be compromised by mineral exploration activities.

6. Environmental Management Plan

6.1 Overview

This Environmental Management Plan is intended to give effect to the recommendations of the Environmental Impact Assessment. To achieve this goal, it is essential that all personnel involved on the mineral exploration are fully aware of the environmental issues and the means to avoid or minimize the potential impacts of activities on site. The proposed mineral exploration activities are summarized in Section 3 of the scoping report above. Legal and policy requirements are well known and understood by the proponent, its employees and contractors and will be strictly enforced by its management team. A general description of the environment is contained in Section 4, and more site-specific information on particularly sensitive areas is contained in Section 4 as well. Issues and concerns identified in the EIA will form a set of environmental specifications that will be implemented on site. It is the intention that these environmental specifications should form the basis for an agreement between the proponent and the Ministry of Environment and Tourism. By virtue of that agreement, these specifications will become binding on the proponent.

Environmental management requires a joint effort on the part of all parties involved. The proponent has assigned certain roles to ensure that all players fulfil their responsibilities in this regard.

6.2 Environmental Management Principles

The proponent will ensure that all parties involved in the project uphold the following broad aims:

1. All persons will be required to conduct all their activities in a manner that is environmentally and socially responsible. This includes all consultants, contractors, and sub-contractors, transport drivers, guests and anyone entering the exploration areas in connection with the mineral exploration project.
2. Health, Safety and Social Well Being
 - Safeguard the health and safety of project personnel and the public against potential impacts of the project. This includes issues of road safety, precautions against natural dangers on site, and radiation hazards; and,

- Promote good relationships with the local authorities and their staff.

3. Biophysical Environment

- Wise use and conservation of environmental resources, giving due consideration to the use of resources by present and future generations;
- Prevent or minimise environmental impacts;
- Prevent air, water, and soil pollution, Biodiversity conservation and Due respect for the purpose and sanctity of the area.

To achieve these aims, the following principles need to be upheld.

A. Commitment and Accountability:

The proponent's senior executives and line managers will be held responsible and accountable for:

Health and safety of site personnel while on duty, including while travelling to and from site in company vehicles and environmental impacts caused by mineral exploration activities or by personnel engaged in the mineral exploration activities, including any recreational activities carried out by personnel in the area

B. Competence

The proponent will ensure a competent work force through appropriate selection, training, and awareness in all safety, health and environmental matters.

C. Risk Assessment, Prevention and Control

Identify, assess and prioritise potential environmental risks. Prevent or minimize priority risks through careful planning and design, allocation of financial resources, management and workplace procedures. Intervene promptly in the event of adverse impacts arising.

D. Performance and Evaluation

Set appropriate objectives and performance indicators. Comply with all laws, regulations, policies and the environmental specifications. Implement regular monitoring and reporting of compliance with these requirements.

E. Stakeholder Consultation

Create and maintain opportunities for constructive consultations with employees, authorities, other interested or affected parties. Seek to achieve open exchange of information and mutual understanding in matters of common concern.

F. Continual Improvement

Through continual evaluation, feedbacks, and innovation, seek to improve performance about social health and well-being and environmental management throughout the lifespan of the mineral exploration project.

G. Financial Provisions for Mineral exploration

In line with Namibia's environmental rehabilitation policy, the proponent will make the necessary financial provision for compliance with the EMP.

6.3 Impacts on the Bio-physical Environment

6.3.1 Impacts on Archaeological Sites

The **nature of impact** is outlined below:

- Potential damage to archaeological sites as a result of vehicle tracks, footprints and actions of contractors, employees and visitors of the mineral exploration site.
- As the mitigation measures below are fully enforced, any impact will be significantly reduced compared to with present situation.

Mitigation Measures to be enforced:

- Buffer zones will be created around the sites.
- Adhere to practical guidelines provided by an archaeologist to reduce the archaeological impact of mineral exploration activities.

-
- All archaeological sites to be identified and protected before further exploration commences.
 - Notices/information boards will be placed on sites.
 - Training employees regarding the protection of these sites.

Methods for monitoring:

- An archaeologist will inspect any identified archaeological sites before commencing with the mineral exploration activities.

6.3.2 Impacts on Fauna

The **nature of impact** is outlined below:

- Movement of vehicles in and out of the site.
- Noise produced by moving earth-moving equipment.

Mitigation Measures to be enforced:

- Some habitat areas such as trees of the riverbeds and tunnels outcrops will be avoided wherever possible.
- A fauna survey will be conducted to determine the effect of fragmented habitat on game species should the need arise.
- No animals shall be killed, captured or harmed in any way.
- No foodstuff will be left lying around as these will attract animals which might result in human-animal conflict.
- Care will be taken to ensure that no litter is lying around as these may end up being ingested by wild animals
- No animals shall be fed. This allows animals to lose their natural fear of humans, which may result in dangerous encounters.

Methods for monitoring:

- Regular monitoring of any unusual signs of animal habitat.

6.3.3 Impacts on Avifauna

Birds or Nest sites will not be disturbed by any employee, visitor or contractor.

6.3.4 Impact on Vegetation

The **nature of impact** is outlined below:

- Negative impacts on plants from trenching, compacting and removal of plants.
- Negative Impact from movement of vehicles and the movement of people around the site.
- Negative impacts from land-clearing and mineral exploration operations.

Mitigation Measures to be enforced:

- Environmental considerations will always be adhered to before clearing roads, trenching and excavating.
- Paths and roads will be aligned to avoid root zones. Permeable materials will be used wherever possible.
- The movement of vehicles in riverbeds, rocky outcrops and vegetation sensitive areas will be avoided.
- The movement of vehicles will be restricted to certain tracks only.
- Areas with species of concern will be avoided.
- Ministry of Environment and Tourism will be informed of any protected species which will be transplanted in consultation with MET.

6.3.5 Impacts of Alien invasive Plants

The **nature of impact** is outlined below:

- Plant or seed material may adhere to car tyres or animals
- Seed or plant material may be imported to site in building materials if the source is contaminated.
- Seeds may blow from debris removed at sites.

Mitigation Measures to be enforced:

- The explorer will ensure that debris is properly disposed of.
- Vehicle tyre inspections can be carried out although this may not be a practical mitigation measure.
- Eradicating alien plants by using an Area Management Plan

Methods for monitoring:

- Regular monitoring of any unusual signs of alien species.

6.3.6 Impacts on Socio-Economic

The **nature of impact** is outlined below:

- Impact from loss of grazing for domestic livestock in “exclusive use zone”
- Impacts on cultural and spiritual values.
- Demographic factors: Attraction of additional population that cannot benefit from the project.
- Perception of Health and Safety risks associated with mineral exploration.

Mitigation Measures to be enforced:

- The population change can be mitigated by employing people from the local community and encouraging the contractors to employ local individuals.
- The perception of risks will be mitigated by putting up safety signs wherever possible and ensuring that all employees and visitors to the site undergo a safety induction course.

Methods for monitoring:

- Public meetings will be held by the proponent whenever necessary.

6.3.7 Visual Impacts

The **nature of impact** is outlined below:

- Tracks and damaged vegetation caused by the mineral exploration vehicles.

Mitigation Measures to be enforced:

- Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating.

Methods for monitoring:

- Employees will be trained on the importance of minimising visual impacts.

6.3.8 Use of Natural Resources

Water and electricity are very scarce in Namibia. During the exploration, best international practices will be considered as a minimum standard for operation. The bulk of the power supply to the exploration site will be sourced from the proponent's own generator. The proponent will maximise water recycling opportunities wherever possible.

6.3.9 Generation of Solid Waste

Correct management of solid waste will involve a commitment to the full waste life cycle by all the employees and contractors of the site. The Proponent's goal is to avoid the generation of solid waste in the first place and if not possible, to minimise the volumes generated by looking at technologies that promote longevity and recycling of products. Ideally, the proponent should transport solid waste to a registered site for disposal. However, it is not certain if such facilities are available in the area or if they have the capacity to handle large increases in volume. Appropriate on-site facilities will be designed to store large volumes of waste.

6.3.10 Noise

The **nature of impact** is outlined below:

- Movement of people, and vehicles.
- Noise may be generated from an airborne geophysical survey which may be carried out at a later stage.

Mitigation Measures to be enforced:

- Disturbance to fauna that roam the area will be minimized by training the employees on ways to minimise noise.

6.3.11 Air Quality

The **nature of impact** is outlined below:

- Dust from movement of people, vehicles and earth-moving machinery. Emissions from vehicles and drill rigs as well.

Mitigation Measures to be enforced:

- All staff on should be equipped with dosimeters that measure exposure levels to radiation.
- All staff must be made aware of the health risk and obliged to wear dust masks.

6.4 Summary of Environmental Management Plan during construction, operation and decommissioning phases

Construction/Initial Phase			
Environmental Impact	Proposed mitigation measures	Responsibility	Monitoring plan
Air pollution	<ul style="list-style-type: none"> • Control speed and operation of construction vehicles. • Prohibit idling of vehicles. • Maintenance of vehicles and equipment. • Sensitize field exploration workers and contractors. • Workers should be provided with dust masks if working in sensitive areas. 	<ul style="list-style-type: none"> • Contractor • Site Manager 	<ul style="list-style-type: none"> • Amount of dust produced. • Level of Landscaping carried out.
Noise pollution	<ul style="list-style-type: none"> • Maintain equipment and vehicles. • Field work should only be carried out only during daytime i.e. 08h00 to 17h00. • Workers should wear earmuffs if working in noisy section. • Management to ensure that noise is kept within reasonable levels. 	<ul style="list-style-type: none"> • Contractor • Management 	Amount of noise
Solid waste	<ul style="list-style-type: none"> • Any debris should be collected by a waste collection company • If trenches are dug, waste should be re-used or backfilled. • The site should have waste receptacles with bulk storage facilities at convenient points to prevent littering during exploration. 	<ul style="list-style-type: none"> • Management 	Presence of well-Maintained receptacles and central collection point.

Oil leaks and spills	<ul style="list-style-type: none"> • Vehicles and equipment should be well maintained to prevent oil leaks. • Contractor should have a designated area where maintenance is carried out and that is protected from rainwater. • All oil products should be handled carefully. 	<ul style="list-style-type: none"> • Contractor 	No oil spills and leaks on the site
First aid	<ul style="list-style-type: none"> • A well-stocked first aid kit shall be maintained by qualified personnel 	<ul style="list-style-type: none"> • Management 	Contents of the first aid kit.
Visual	<ul style="list-style-type: none"> • Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. 	<ul style="list-style-type: none"> • Management 	<ul style="list-style-type: none"> • Employees will be trained on the importance of minimising visual impacts.
Archaeological Sites	<ul style="list-style-type: none"> • Buffer zones will be created around the sites. • Adhere to practical guidelines provided by an archaeologist to reduce the archaeological impact of mineral exploration activities. • All archaeological sites to be identified and protected before further exploration commences. 	<ul style="list-style-type: none"> • Management 	<ul style="list-style-type: none"> • Register of all archaeological sites identified.
Occupational Health and Safety	<ul style="list-style-type: none"> • Provide Personal Protective Equipment • Train workers on personal safety and how to handle equipment and machines. • A well-stocked first aid kit shall be maintained by qualified personnel. • Report any accidents / incidences and treat and compensate affected workers. • Provide sufficient and suitable sanitary conveniences which should be kept clean. 	<ul style="list-style-type: none"> • Contractor • Management 	<ul style="list-style-type: none"> • Workers using Protective Equipment. • Presence of Well stocked First Aid Box. • Clean sanitary facilities.
Fauna	<ul style="list-style-type: none"> • Some habitat areas such as trees of the riverbeds and tunnels outcrops will be avoided wherever possible. • A fauna survey will be conducted to determine the effect of fragmented habitat on game species should the need arise. • No animals shall be killed, captured or harmed in any way. • No foodstuff will be left lying around as these will attract animals which might result in human-animal conflict. 	<ul style="list-style-type: none"> • Management 	<ul style="list-style-type: none"> • Regular monitoring of any unusual signs of animal habitat.
Alien Invasive Plants	<ul style="list-style-type: none"> • The explorer will ensure that debris is properly disposed off. • Vehicle tyre inspections can be carried out although this may not be a practical mitigation measure. • Eradicating alien plants by using an Area Management Plan 	<ul style="list-style-type: none"> • Management • Contractor 	<ul style="list-style-type: none"> • Regular monitoring of any unusual signs of alien species.
Loss of vegetation	<ul style="list-style-type: none"> • Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. • Paths and roads will be aligned to avoid root zones. Permeable materials will be used wherever possible. • The movement of vehicles in riverbeds, rocky outcrops and vegetation sensitive areas will be avoided. • The movement of vehicles will be restricted to certain tracks only. 	<ul style="list-style-type: none"> • Contractor • Management 	<ul style="list-style-type: none"> • Warning signs on site • restored vegetation
Operational Phase			

Environmental/ Social Impact	Proposed mitigation measures	Responsibility	Monitoring plan
Noise pollution	<ul style="list-style-type: none"> • Maintain vehicles and drilling equipment. • Exploration drilling should be carried out only during daytime. • Workers to wear earmuffs if working in noisy section • Management to ensure that noise is kept within reasonable levels. 	<ul style="list-style-type: none"> • Contractor • Management 	<ul style="list-style-type: none"> • Amount of noise
Visual	<ul style="list-style-type: none"> • Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. 	<ul style="list-style-type: none"> • Management 	<ul style="list-style-type: none"> • Employees will be trained on the importance of minimising visual impacts.
Fauna	<ul style="list-style-type: none"> • Some habitat areas such as trees of the riverbeds and tunnels outcrops will be avoided wherever possible. • A fauna survey will be conducted to determine the effect of fragmented habitat on game species should the need arise. • No animals shall be killed, captured or harmed in any way. • No foodstuff will be left lying around as these will attract animals which might result in human-animal conflict. 	<ul style="list-style-type: none"> • Management 	<ul style="list-style-type: none"> • Regular monitoring of any unusual signs of animal habitat.
Alien Invasive Plants	<ul style="list-style-type: none"> • The explorer will ensure that debris is properly disposed of. • Vehicle tyre inspections can be carried out although this may not be a practical mitigation measure. • Eradicating alien plants by using an Area Management Plan 	<ul style="list-style-type: none"> • Management • Contractor 	<ul style="list-style-type: none"> • Regular monitoring of any unusual signs of alien species.
Loss of vegetation	<ul style="list-style-type: none"> • Environmental considerations will be adhered to at all times before clearing roads, trenching and excavating. • Paths and roads will be aligned to avoid root zones. Permeable materials will be used wherever possible. • The movement of vehicles in riverbeds, rocky outcrops and vegetation sensitive areas will be avoided. • The movement of vehicles will be restricted to certain tracks only. 	<ul style="list-style-type: none"> • Contractor • Management 	<ul style="list-style-type: none"> • Warning signs on site • restored vegetation
Solid waste	<ul style="list-style-type: none"> • Minimize solid waste generated on site. • Recycle waste especially waste from trenching. • Debris should be collected by waste collection company. • Excavation waste should be re-used or backfilled. 	<ul style="list-style-type: none"> • Contractor • Management 	<ul style="list-style-type: none"> • Amount of waste on Site • Presence of well-Maintained receptacles and central collection point.
Oil leaks and spills	<ul style="list-style-type: none"> • Machinery should be well maintained to prevent oil leaks. • Contractor should have a designated area where maintenance is carried out and that is protected from rainwater. • All oil products should be stored in a site store and handled carefully. 	<ul style="list-style-type: none"> • Contractor 	<ul style="list-style-type: none"> • No oil spills and leaks on the site.

Archaeological Sites	<ul style="list-style-type: none"> • Buffer zones will be created around the sites. • Adhere to practical guidelines provided by an archaeologist to reduce the archaeological impact of mineral exploration activities. • All archaeological sites to be identified and protected before further exploration commences. 	<ul style="list-style-type: none"> • Management 	<ul style="list-style-type: none"> • Update Register of all archaeological sites identified.
First aid	<ul style="list-style-type: none"> • A well-stocked first aid kit shall be maintained by qualified personnel 	<ul style="list-style-type: none"> • Management 	<ul style="list-style-type: none"> • Contents of the first aid kit.
Fire preparedness	<ul style="list-style-type: none"> • Firefighting drills carried out regularly. • Firefighting emergency response plan. • Ensure all firefighting equipment are regularly maintained, serviced and inspected. • Fire hazard signs and directions to emergency exit, route to follow and assembly point in case of any fire incidence. 	<ul style="list-style-type: none"> • Management 	<ul style="list-style-type: none"> • Number of fire drills carried. • Proof of inspection on firefighting equipment. • Fire Signs put up in strategic places. • Availability of firefighting equipment.
Environment Health and Safety	<ul style="list-style-type: none"> • Train workers on personal safety and disaster preparedness. • A well-stocked first aid kit shall be maintained by qualified personnel. • Report any accidents / incidences and treat and compensate affected workers. • Provide sufficient and suitable sanitary conveniences which should be kept clean. • Conduct Annual Health and Safety Audits. 	<ul style="list-style-type: none"> • Management 	<ul style="list-style-type: none"> • Provide sanitary facilities. • Copies of Annual Audit
Decommissioning Phase			
Environmental/Social Impact	Proposed mitigation measures	Responsibility	Monitoring plan/indicator
Noise & Air pollution	<ul style="list-style-type: none"> • Maintain plant equipment. • Decommissioning works to be carried out only during daytime. • Workers working in noisy section to wear earmuffs. • Workers should be provided with dust masks. 	<ul style="list-style-type: none"> • Contractor • Management 	<ul style="list-style-type: none"> • Amount of noise
Disturbed Physical environment	<ul style="list-style-type: none"> • Undertake a complete environmental restoration programme and introducing appropriate vegetation 	<ul style="list-style-type: none"> • Management 	
Solid waste	<ul style="list-style-type: none"> • Solid waste should be collected by a contracted waste collection company • Excavation waste should be re-used or backfilled. 	<ul style="list-style-type: none"> • Contractor • Management 	<ul style="list-style-type: none"> • Amount of waste on Site. • Presence of well-maintained receptacles and central collection point.

Occupational Health and Safety	<ul style="list-style-type: none"> • Provide Personal Protective Equipment. • Train workers on personal safety and how to handle equipment and machines. • A well-stocked first aid kit shall be maintained by qualified personnel. • Demarcate area under decommissioning. 	<ul style="list-style-type: none"> • Contractor 	<ul style="list-style-type: none"> • Workers using Protective Equipment. • Presence of a First Aid Box.
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6.5 Monitoring, Auditing and Reporting

6.5.1 Inspections and Audits

During the life of the project, performance against the EMP commitments will need to be monitored, and corrective action taken where necessary, in order to ensure compliance with the EMP and relevant enviro-legal requirements.

6.5.1.1 Internal Inspections/Audits

The following internal compliance monitoring programme will be implemented:

1. Project kick-off and close-out audits will be conducted on all contractors. This applies to all phases, including drilling contract work during operations:
 - Prior to a contractor beginning work, an audit will be conducted by the applicable phase site manager to ensure that the EMP commitments are included in Contractors' standard operating procedures (SOPs) and method statements.
 - Following completion of a Contractors work, a final close-out audit of the contractor's performance against the EMP commitments will be conducted by the applicable phase site manager.
2. Monthly internal EMP performance audits will be conducted during the construction/initial and decommissioning phases.
3. Ad hoc internal inspections can be implemented by the applicable phase exploration manager at his/her discretion, or in follow-up to recommendations from previous inspection/audit findings.

6.5.1.2 External Audits

- At the close of each project phase, and annually during the operational phase, an independently conducted audit of EMP performance will be conducted.

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- Specialist monitoring/auditing may be required where specialist expertise are required or in order to respond to grievances or authorities directives.
 - Officials from the DEA may at any time conduct a compliance and/or performance inspection of mineral exploration operations. The proponent will be provided with a written report of the findings of the inspection. These audits assist with the continual improvement of the exploration project and the proponent will use such feedback to help improve its overall operations.

6.5.1.3 Documentation

Records of all inspections/audits and monitoring reports will be kept in line with legislation. Actions will be issued on inspection/audit findings. These will be tracked and closed out.

6.5.1.4 Reporting

Environmental compliance reports will be submitted to the Ministry of Environment and Tourism on a bi-annual basis.

6.5.2 Environmental Management System Framework

In order implement Environmental Management Practices, an Environmental Management System (EMS) will be established and implemented by the proponent and their Contractors. This subchapter establishes the framework for the compilation of a project EMS. The applicable exploration manager will maintain a paper based and/or electronic system of all environmental management documentation. These will be divided into the following main categories:

6.5.2.1 Policy and Performance Standards

A draft environmental policy and associated objective, goals and commitments has been included in the EMP. The mineral explorer may adapt these as necessary.

6.5.2.2 Enviro-Legal Documentation

A copy of the approved environmental assessment and EMP documentation will always be available by the proponent. Copies of the Environment Clearance Certificate and all other associated authorisations and permits will also be kept with

the exploration team. In addition, a register of the legislation and regulations applicable to the project will be maintained and updated as necessary.

6.5.2.3 Impact Aspect Register

A register of all project aspects that could impact the environment, including an assessment of these impacts and relevant management measures, is to be maintained. This Draft EMP identifies the foreseeable project aspects and related potential impacts of the proposed project, and as such forms the basis for the Aspect-Impact Register; with the Project Activity. It is however noted that during the life of the project additional project aspects and related impacts may arise which would need to be captured in the Aspect-Impact Register. In this regard, the impact identification principles set forth in the scoping report can be used to update the Register. This method can be modified as required by the applicable exploration manager as necessary during the life of the project.

6.5.2.3 Procedures and Method Statements

In order to affect the commitments contained in this EMP, procedures and method statements will be drafted by the relevant responsible mineral exploration staff and Contractors. These include, but may not be limited:

- Standard operating procedures for environmental action plan and management programme execution.
- Incident and emergency response procedures.
- Auditing, monitoring and reporting procedures, and
- Method statements for EMP compliance for ad hoc activities not directly addressed in the EMP action plans.

All procedures are to be version controlled and signed off by the applicable exploration manager. In addition, knowledge of procedures by relevant staff responsible for the execution thereof must be demonstrable and training records maintained.

6.5.2.4 Register of Roles and Responsibilities

During project planning and risk assessments, relevant roles and responsibilities will be determined. These must be documented in a register of all environmental

commitment roles and responsibilities. The register is to include relevant contact details and must be updated as required.

6.5.2.5 Site Map

An up to date map of the exploration site indicating all project activities is to be maintained. In addition to the project layout, the following detail must be depicted:

- Materials handling and storage;
- Waste management areas (collection, storage, transfer, etc.);
- Sensitive areas;
- Incident and emergency equipment locations; and Location of responsible parties.

6.5.2.6 Environmental Management Schedule

A schedule of environmental management actions is to be maintained by the applicable phase site managers and/or relevant Contractors. A master schedule of all such activities is to be kept up to date by the exploration manager. Scheduled environmental actions can include, but are not limited to:

- Environmental risk assessment;
- Environmental management meetings;
- Soil handling, management and rehabilitation;
- Waste collection
- Incident and emergency response equipment evaluations and maintenance
- Environmental training;
- Stakeholder engagement; Environmental inspections; and
- Auditing, monitoring and reporting.

6.5.2.7 Change Management

The EMS must have a procedure in place for change management. In this regard, updating and revision of environmental documentation, of procedures and method statements, actions plants etc. will be conducted as necessary in order to account for the following scenarios:

- Changes to standard operating procedures (SOPs);
- Changes in scope;
- Ad hoc actions;
- Changes in project phase; and
- Changes in responsibilities or roles

All documentation will be version controlled and require sign off by the applicable phase site managers.

6.6 Closure Plan

The closure vision for the proposed project is to establish a safe, stable and non-polluting post-prospecting landscape that can facilitate integrated, self-sustaining and value generating opportunities, thereby leave a lasting positive legacy. The aim of the closure plan is to:

- Creating a safe, physically stable rehabilitated landscape that limits long-term erosion potential and environmental degradation.
- Sustaining long term catchment yield and water quality.
- Focusing on establishing a functional post-prospecting landscape that enables self-sustaining agricultural practices where possible.
- To encourage, where appropriate, the re-instatement of terrestrial and aquatic wetland biodiversity

6.6.1 Alternatives Considered

Considering that this is an exploration project, the proposed project is not complex, and the risks associated with prospecting are understood and can be mitigated at

closure. Alternative options for closure are limited. There are only two options that have been considered as activity alternatives for the closure plan:

- **Preferred Alternative:** Closure or Backfill of boreholes with overburden removed during drilling.
- **Alternative 2:** To Leave boreholes open, in-order to allow for groundwater recharge by surface run-off.

6.6.2 Preferred Alternative: Rehabilitation/ Backfill of boreholes

Rehabilitation is the restoration of a disturbed area that has been degraded as a result of activities such as mining, road construction or waste disposal, to a land use in conformity with the original land use before the activity started. This also includes aesthetical considerations, so that a disturbed area will not be visibly different to the natural environment. This also involves maintaining physical, chemical and biological ecosystem processes in degraded environments, hence the preferred option of backfilling the boreholes with the overburden removed during development and cover with growth medium to establish vegetation. This option has several advantages as discussed below:

Advantages:

- The site will be aesthetically acceptable;
- The site will blend in with the environment;
- The site will be a suitable habitat for fauna and flora again.
- The site will be safe and pollution free;
- Revegetating the site will ensure that the site is non-erodible.

Opting for alternative 1, which is to leave boreholes without backfilling poses a risk in that, these boreholes may fill in with water, which may become attractive to wildlife and communities leading to drowning and the risk of being trapped in the declines. To mitigate these risks, it is necessary to backfill. Treatment technologies should be used to prevent decanting.

6.6.3 Closure Assumptions

This closure plan has been developed based on limited available information including environmental data. Some of the information currently available may need to be supplemented during the operational period. Therefore, several assumptions were made about general conditions, and closure and rehabilitation of the facilities at the site to develop the proposed closure actions. As additional information is collected during operations, these assumptions will be reviewed and revised as appropriate.

The assumptions used to prepare this plan include the following:

- The closure period will commence once the last planned weight of minerals has been extracted from the site for laboratory testing.
- The proposed prospecting sites will be adhered to minimise the potential impacts.
- Vegetation establishment will be in line with a project area's indigenous vegetation.
- Water management infrastructure developed for the operational phase will be retained for closure /end of the life of the project as necessary.
- There are limited opportunities for any infrastructure to be built on site and if any infrastructure is built, it will be of limited benefit to the community. Therefore, all buildings will be demolished.
- All hazardous and domestic waste will be transported offsite for disposal in licensed landfills.
- No roads are anticipated to be constructed to access the site; existing roads will be used as far as possible. Where access tracks have been developed in cases where there are no roads, these will be rehabilitated and closed as part of normal closure actions.

6.6.4 Closure and Rehabilitation Activities

The rehabilitation actions intended to be undertaken at the end of the life of the proposed prospecting activities are described below.

6.6.4.1 Infrastructure

All infrastructures will be decommissioned, and the footprints rehabilitated for the establishment of vegetation. Material inventories will be managed near the end of prospecting activities to minimize any surplus materials at closure. Where practicable, equipment and materials with value not needed for post-closure operations will be sold and or removed from the site. Equipment with scrap or salvage value will be removed from the site and sold to recyclers.

A soil contamination investigation will be conducted on completion of demolition activities. The purpose of this is to identify areas of possible contamination and design and implement appropriate remedial measures to ensure that the soil contaminants are removed. Closure actions will include:

- All power and water services to be disconnected and certified as safe prior to commencement of any decommissioning works;
- All remaining inert equipment and decommissioning waste will be disposed to the nearest licensed general waste disposal facility;
- Salvageable equipment will be removed and transported offsite prior and during decommissioning;
- All tanks, pipes and sumps containing hydrocarbons to be flushed or emptied prior to removal to ensure no hydrocarbon/chemical residue remains;

6.6.4.2 Boreholes

Closure of boreholes will entail backfilling with overburden stripped ahead of prospecting activities. All overburden should be replaced into the void and the final surface reshaped to simulate surrounding topography while ensuring that the surface is free draining.

Once backfilling is complete a growth medium cover will be placed, and vegetation will be established. There may be a requirement to include sacrificial erosion protection measures on the surface while vegetation is being established.

6.6.4.3 Roads

Existing roads will be used as far as possible. Closure actions concerning roads and parking areas will include:

- Removal of all signage, fencing, shade structures, traffic barriers, etc.
- All 'hard top' surfaces to be ripped along with any concrete structures.
- All potentially contaminated soils are to be identified and demarcated for later remediation; and
- All haul routes that have been treated with saline dust suppression water need to be treated, with the upper surface ripped and removed to designated contaminant disposal areas.

6.6.4.4 Remediation of Contaminated Areas

All soil, contaminated with hydrocarbons, will be identified, excavated, if possible, to at least 200 mm below the contaminated zone and then treated.

- All tanks, pipes and sumps containing hydrocarbons will be flushed or emptied.
- Removed soils will be managed as determined by the nature and extent of the contamination.
- Liquid storage tanks will be emptied, the structure removed/demolished and sub-surface holes filled; and
- All equipment in which chemicals have been stored or transported will be cleaned and disposed of in a suitable disposal facility.

6.6.4.5 Vegetation

Successful revegetation will help control erosion of soil resources, maintain soil productivity and reduce sediment loading in streams utilizing non-invasive plants that fit the criteria of the habitat (e.g. soils, water availability, slope and other appropriate environmental factors). Invasive species will be avoided, and the area will be managed to control the spread of these species.

To counter the effects of erosion, naturally occurring grassland species will be planted on slopes. These species will provide soil holding capacity and reduce runoff velocity.

The flatter areas will be re-vegetated with the objective of creating a sustainable ecosystem. The occurrence of protected plant species will need to be determined before vegetation is removed and the required permits will be obtained for either destruction or relocation.

6.6.4.6 Waste Management

Waste management activities will include:

- Hazardous waste will be managed handled, classified and disposed.
- Non-hazardous will be disposed in the nearby licensed landfill site;
- Scrap and waste steel will be sold to recyclers.
- It may be necessary to fence temporary salvage yards for security reasons, particularly where these are located close to public roads.

7. Public Participation Process

The public participation process commenced with newspaper advertisements in two widely distributed newspapers for three consecutive weeks as shown in Appendix B.

Known interested and affected parties were notified directly via mail and fax. Posters were placed at the office of the Kunene Regional Council office and at the site as well.

Interested and affected parties that were notified directly include farmers, government departments, regional council, Namwater, Chamber of Mines and individuals that may be affected by the mineral exploration activities. Copies of letters sent by registered mail are attached in the appendix section. No negative concerns were received at this stage. Should any interested and affected parties raise any concerns during the on-going project phase, the Ministry of Environment and Tourism will be immediately notified. The registered interested and affected are indicated in the table below:

Table 11 Register of Organs of State as per section 22(c) of the EIA Regulations of 2012.

Name	Position	Organization
Teofillus Nghitila	Executive Director	Ministry of Environment and Tourism
Timoteus Mufeti	Environmental Commissioner	Ministry of Environment and Tourism
Maria Amakali	Director: Water Resources Management	Ministry of Agriculture, Water and Land Reform
E. Shivolo	Mining Commissioner	Min. of M&E - Mining Commissioner
Lesley Goreseb	Ceo	Karibib Town Council
N. P Du Plessis		NamWater Senior Environmentalist

Registered IAP's and Summary of Issues Raised

Name	Organization	Tel	Email	Comments	Response
Vanessa Stein	National Botanical Research Institute (NBRI)	0612022013	Vanessa.Stein@mawf.gov.na	Careful consideration should be taken on how this activity will impact the indigenous vegetation. We propose requesting a list of plant species for the Quarter Degree Squares of the project area and study this list to see if there are species of conservation concern (Red List species, endemics, protected	Thank you for your comments and input. We will incorporate your comments in the scoping report and

				<p>by legislation and CITES) and quite possibly species which fall under the economic botany section and is of economical concern to communities in the surrounding area. Then if such species exist they must do a proper botanical survey (in the rainy season) to find such species and map their locations so they can be conserved or mitigation measures can be taken.</p>	<p>forward a copy of it.</p>
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8. Conclusion

The scoping report is prepared for the Environmental Impact Assessment for mineral exploration on an area which is located 2 km northeast of Khorixas. It covers the townland and communal area. Coordinates for the centre of the licence are - 20.358708 and 14.964366. Environmental scoping is a critical step in the preparation of an EIA for the proposed mineral exploration activities.

Basically, mineral exploration is relatively unsophisticated and rudimentary. The methods that will be employed are mainly target generation, target drilling, resource evaluation and mineral resource definition.

With the potential employment of 15 people, this means that 15 families will benefit from the project during the exploration phase. The project has great potential to improve livelihoods and contribute to sustainable development within the surrounding community.

At this stage, electricity requirements for the project are minimal. The bulk of the power supply to the exploration site will be sourced from the proponent's own generator.

The potential negative impacts associated with the proposed mineral exploration project are expected to be low to medium in significance. Provided that the relevant mitigation measures are successfully implemented by the proponent, there are no environmental reasons why the proposed project should not be approved. The project will have significant positive economic impacts that would benefit the local, regional and national economy of Namibia.

Several other potential impacts have been addressed in Section 5 and 6 of this EIA, and will be managed through the implementation of the EMP.

The EMP contains a set of Environmental Specifications that will form part of all contracts between the proponent and contractors such as lubrication companies. The requirements of the EMP will be enforced on site by the Management team, and periodic environmental audits will be undertaken and submitted to MET.

This EIA has been subject to a few limitations, which are explained as follows: -

- the time available in which to secure an environmental contract with the authorities; and,

The limited botanical work done to date did not raise any concerns but will be monitored on an on-going basis. If any “special” species of plants are found, these will be located by GPS. An addendum will then be added to the EMP to indicate localities that should be avoided, or to implement other appropriate measures about any special plants.

9. References

!Owos-Oab, E., 2014. *THE IMPACT OF DECENTRALISED AGRICULTURAL EXTENSION SERVICE ON STOCK-RAISING IN DÂURES CONSTITUENCY OF THE ERONGO REGION: A CASE STUDY OF THE OKOMBAHE SETTLEMENT*, Windhoek: University of Namibia Thesis.

Anon, 2011. *The 2011 Population and Housing Census*, Windhoek: Office of the President.

Barnard, P., 1998. *Biological diversity in Namibia - a country study*, Windhoek: Namibian National Biodiversity Task Force.

Brown, C. & Lawson, J., 1989. *Birds and electricity transmission lines in South West Africa/Namibia*, Windhoek: Madoqua.

Burke, A., 2003. *Floristic relationship between inselbergs and mountain habitats in the Central Namib.*, s.l.: Dinteria.

Calcutt, V., 2001. *Introduction to Copper: Mining & Extraction*, s.l.: Copper Development Association.

Christian, C., 2005. *Spitzkoppe Lodge Proposal Final Report*, Windhoek: Eco Plan (Pty) Ltd.

Green, C., 2012. *The Regulation of Sand Mining in South Africa*, Cape Town: University of Cape Town Thesis.

Griffin, E., 1998. *Species richness and biogeography of non-acarine arachnids in Namibia*, Windhoek: Biodiversity and Conservation.

Hoffmann, K., 1989. *New aspects of lithostratigraphic subdivision and correlation of late Proterozoic to early Cambrian rocks of the southern Damara Belt and their correlation with the central and northern Damara Belt and the Gariep Belt*, Windhoek: Communs geol. Surv. Namibia.

Kisters, A., 2008. *Introduction to the Damara Orogen*, Windhoek: Isotope Geology of Namibia.

Levinson, O., 1983. *Diamonds in the Desert*. Cape Town: Tafelberg.

Marshall, T. & Baxter-Brown, R., 1995. Basic principles of alluvial diamond exploration. *Journal of Geochemical Exploration*, pp. 278-293.

Mendelsohn, J., Jarvis, A., Roberts, C. & Robertson, T., 2002. *Atlas of Namibia: a portrait of the land and its people*, Cape Town: David Philip.

Mentes, H., 2012. *Design and Development of a Mineral Exploration Ontology*, Georgia: Georgia State University.

- Meyer, H., 1991. *Marine Diamonds off Southern Africa*, s.l.: Diamond International .
- Miller, R., 1992. *The mineral resources of Namibia*. Windhoek: Geological Survey of Namibia, Ministry of Mines & Energy. p2.3-93-96.
- Mohr, S., Mudd, G. & Guirco, D., 2012. Lithium Resources and Production: Critical Assessment and Global Projections. *minerals*, pp. 65-84.
- Miller, R., 2008. *The geology of Namibia*. Windhoek: Geological survey of Namibia, Ministry of Mines & Energy.
- Schneider, G. & Seeger, K., 1992. Copper. In: s.l.:The Mineral Resources of Namibia, pp. 2.3, 1-172.
- Simmons, R. & Komen, L., 2003. *Pussyfooting Around*, s.l.: Africa Geographic.

Appendix A

SCIENTIFIC NAME	COMMON NAME	STATUS	OCCURRENCE
<i>Eidolon helvum</i>	STRAW-COLORED FRUIT BAT	SECURE	SEASONAL
<i>Nycteris thebaica</i>	COMMON SLIT-FACED BAT	SECURE	ABUNDANTLY
<i>Taphozous mauritianus</i>	TOMB BAT	SECURE	SEASONAL
<i>Rhinolophus fumigatus</i>	RÜPPELL'S HORSESHOE BAT	SECURE	OCCASIONALLY
<i>Rhinolophus darlingi</i>	DARLING'S HORSESHOE BAT	SECURE	OCCASIONALLY
<i>Rhinolophus denti</i>	DENT'S HORSESHOE BAT	SECURE	OCCASIONALLY
<i>Hipposideros commersoni</i>	COMMERSON' S LEAF-NOSED BAT	SECURE	ABUNDANTLY
<i>Hipposideros caffer</i>	SUNDEVALL' S LEAF-NOSED BAT	SECURE	ABUNDANTLY
<i>Chaerephon nigeriae</i>	NIGERIAN FREE-TAILED BAT	SECURE	ABUNDANTLY
<i>Mops midas</i>	MIDAS FREE-TAILED BAT	SECURE	ABUNDANTLY
<i>Tadarida aegyptiaca</i>	EGYPTIAN FREE-TAILED BAT	SECURE	ABUNDANTLY
<i>Miniopterus inflatus</i>	GREATER LONG-FINGERED BAT	SECURE	RARELY
<i>Miniopterus schreibersi</i>	SCHREIBERS' LONG-FINGERED BAT	SECURE	ABUNDANTLY
<i>Neoromicia capensis</i>	CAPE SEROTINE BAT	SECURE	ABUNDANTLY
<i>Neoromicia zuluensis</i>	ALOE SEROTINE BAT	SECURE	RARELY
<i>Nycticeinops schlieffenii</i>	SCHLIEFFEN' S BAT	SECURE	RARELY
<i>Scotophilus dingani</i>	AFRICAN YELLOW BAT	SECURE	ABUNDANTLY
<i>Atelerix frontalis</i>	SOUTHERN AFRICAN HEDGEHOG	UNKNOWN, RARE?	RARELY
<i>Crociodura fuscomurina</i>	TINY MUSK SHREW	SECURE	RARELY
<i>Crociodura hirta</i>	LESSER RED MUSK SHREW	SECURE	ABUNDANTLY
<i>Galago moholi</i>	SOUTHERN AFRICAN BUSHBABY	UNKNOWN, RARE?	ABUNDANTLY
<i>Papio ursinus</i>	CHACMA BABOON	SECURE	ABUNDANTLY
<i>Lepus victoriae</i>		SECURE	ABUNDANTLY
<i>Xerus inaurus</i>	CAPE GROUND SQUIRREL	SECURE	ABUNDANTLY
<i>Funisciurus congicus</i>	STRIPED TREE SQUIRREL	SECURE	RARELY
<i>Saccostomus campestris</i>	POUCHED MOUSE	SECURE	ABUNDANTLY
<i>Tatera leucogaster</i>	BUSHVELD GERBIL	SECURE	ABUNDANTLY
<i>Tatera brantsii</i>	HIGHVELD GERBIL	SECURE	ABUNDANTLY
<i>Desmodillus auricularis</i>	SHORT-TAILED GERBIL	SECURE	RARELY
<i>Gerbillurus paebea</i>	PYGMY GERBIL	SECURE	ABUNDANTLY
<i>Steatomys pratensis</i>	FAT MOUSE	SECURE	ABUNDANTLY
<i>Malacothrix typica</i>	LARGE-EARED MOUSE	SECURE	RARELY
<i>Mus indutus</i>	KALAHARI PYGMY MOUSE	SECURE	ABUNDANTLY
<i>Lemniscomys rosalia</i>	SINGLE-STRIPED MOUSE	SECURE	RARELY
<i>Rhabdomys pumilio</i>	STRIPED MOUSE	SECURE	ABUNDANTLY
<i>Thallomys paedulcus</i>	TREE RAT	SECURE	ABUNDANTLY
<i>Thallomys nigricauda</i>	BLACK-TAILED TREE RAT	SECURE	ABUNDANTLY
<i>Aethomys namaquensis</i>	NAMAQUA ROCK RAT	SECURE	RARELY
<i>Aethomys chrysophilus</i>	RED VELD RAT	SECURE	ABUNDANTLY
<i>Zelotomys woosnami</i>	WOOSNAM'S DESERT RAT	RARE	RARELY
<i>Mastomys natalensis</i>	NATAL MULTIMAMMATE MOUSE	SECURE	ABUNDANTLY
<i>Mastomys coucha</i>	MULTIMAMMATE MOUSE	SECURE	ABUNDANTLY
<i>Graphiurus murinus</i>	WOODLAND DORMOUSE	SECURE	ABUNDANTLY
<i>Pedetes capensis</i>	SPRINGHARE	SECURE	ABUNDANTLY
<i>Hystrix africaeaustralis</i>	SOUTHERN AFRICAN PORCUPINE	SECURE	ABUNDANTLY
<i>Cryptomys damarensis</i>	DAMARA MOLE RAT	SECURE	ABUNDANTLY
<i>Felis lybica</i>	AFRICAN WILD CAT	ENDANGERED & SUPERFICIAL	RARELY

<i>Felis nigripes</i>	SMALL - SPOTTED CAT	INDETERMINATE; PERIPHERAL; RARE?	RARELY
<i>Leptailurus serval</i>	SERVAL	AMBIGUOUS & SUPERFICIAL	RARELY
<i>Caracal caracal</i>	CARACAL	SECURE	ABUNDANTLY
<i>Panthera pardus</i>	LEOPARD	SECURE? & SUPERFICIAL	RARELY
<i>Panthera leo</i>	LION	AMBIGUOUS(END ANGERED) & SUPERFICIAL	EXTINCT
<i>Acinonyx jubatus</i>	CHEETAH	INADEQUATELY KNOWN (ENDANGERED?) & SUPERFICIAL	ABUNDANTLY
<i>Civettictis civetta</i>	CIVET	AMBIGUOUS, RARE? & SUPERFICIAL	RARELY
<i>Genetta maculata</i>	SMALL-SPOTTED GENET	SECURE – SP (taxonomy)	ABUNDANTLY
<i>Galarella sanguinea</i>	SLENDER MONGOOSE	SECURE	ABUNDANTLY
<i>Helogale parvula</i>	DWARF MONGOOSE	SECURE	ABUNDANTLY
<i>Mungos mungo</i>	BANDED MONGOOSE	SECURE	ABUNDANTLY
<i>Cynictis penicillata</i>	YELLOW MONGOOSE	SECURE	ABUNDANTLY
<i>Crocuta crocuta</i>	SPOTTED HYAENA	SECURE? & SUPERFICIAL	EXTINCT
<i>Parahyaena brunnea</i>	BROWN HYAENA	INADEQUATELY KNOWN (ENDANGERED?) & SUPERFICIAL	OCCASIONALLY
<i>Proteles cristatus</i>	AARDWOLF	INADEQUATELY KNOWN (ENDANGERED?) & SUPERFICIAL	ABUNDANTLY
<i>Canis mesomelas</i>	BLACK-BACKED JACKAL	SECURE	ABUNDANTLY
<i>Lycaon pictus</i>	WILD DOG	ENDANGERED & SUPERFICIAL	EXTINCT
<i>Otocyon megalotis</i>	BAT-EARED FOX	ENDANGERED? & SUPERFICIAL- SP (taxonomy)	RARELY
<i>Vulpes chama</i>	CAPE FOX	ENDANGERED?	RARELY
<i>Ictonyx striatus</i>	STRIPED POLECAT	SECURE	ABUNDANTLY
<i>Mellivora capensis</i>	HONEY BADGER	SECURE	RARELY
<i>Poecilogale albinucha</i>	AFRICAN STRIPED WEASEL	AMBIGUOUS(RAR E?)	RARELY
<i>Manis temminckii</i>	SAVANNA PANGOLIN	ENDANGERED & SUPERFICIAL	RARELY
<i>Phacochoerus africanus</i>	SOUTHERN WARTHOG	SECURE	ABUNDANTLY
<i>Giraffa camelopardalis</i>	GIRAFFE	ENDANGERED? & SUPERFICIAL	EXTINCT
<i>Alcelaphus buselaphus</i>	RED HARTEBEEST	SECURE ?	ABUNDANTLY
<i>Antidorcas marsupialis</i>	SPRINGBOK	SECURE	
<i>Connochaetes taurinus</i>	BLUE WILDEBEEST	INADEQUATELY KNOWN (ENDANGERED?) & SUPERFICIAL	ABUNDANTLY
<i>Hippotragus equinus</i>	ROAN	ENDANGERED & SUPERFICIAL	ABUNDANTLY
<i>Madoqua damarensis</i>	DAMARA DIK-DIK	INADEQUATELY KNOWN	RARELY
<i>Oryx gazella</i>	GEMSBOK	SECURE	ABUNDANTLY
<i>Raphicerus campestris</i>	STEENBOK	SECURE	ABUNDANTLY
<i>Sylvicapra grimmia</i>	COMMON DUIKER	SECURE	ABUNDANTLY
<i>Syncerus caffer</i>	BUFFALO	INSUFFICIENTLY KNOWN & SUPERFICIAL	ABUNDANTLY
<i>Tragelaphus oryx</i>	ELAND	INADEQUATELY KNOWN & SUPERFICIAL	ABUNDANTLY
<i>Tragelaphus strepsiceros</i>	GREATER KUDU	SECURE	ABUNDANTLY

<i>Equus burchelli</i>	PLAINS ZEBRA	INADEQUATELY KNOWN & SUPERFICIAL	EXTINCT
<i>Ceratotherium simum</i>	WHITE RHINOCEROS	EXTINCT & REINTRODUCED (non topotypical stock)	EXTINCT
<i>Diceros bicornis</i>	BLACK RHINOCEROS	ENDANGERED & SUPERFICIAL	EXTINCT
<i>Loxodonta africana</i>	AFRICAN ELEPHANT	ENDANGERED & SUPERFICIAL	EXTINCT
<i>Orycteropus afer</i>	AARDVARK	SECURE ?	ABUNDANTLY
<i>Elephantulus intufi</i>	BUSHVELD SENGI	ENDEMIC AND SECURE	ABUNDANTLY

Reptile species which are likely to occur within the exploration area:

SCIENTIFIC NAME	COMMON NAME	STATUS	OCCURRENCE
<i>Pelomedusa subrufa</i>	HELMETED TERRAPIN	SECURE	ABUNDANTLY
<i>Geochelone pardalis</i>	LEOPARD TORTOISE	ENDANGERED & SUPERFICIAL	ABUNDANTLY
<i>Psammobates oculiferus</i>	KALAHARI TORTOISE	ENDANGERED	ABUNDANTLY
<i>Lygodactylus bradfieldi</i>	NAMIBIAN DWARF GECKO	ENDEMIC & SECURE	ABUNDANTLY
<i>Colopus wahlbergii</i>	KALAHARI GROUND GECKO	SECURE	RARELY
<i>Pachydactylus turneri</i>	TROPICAL BUTTON-SCALE GECKO	SECURE	ABUNDANTLY
<i>Pachydactylus capensis</i>	CAPE GECKO	SECURE	UNCOMMONLY
<i>Pachydactylus punctatus</i>	SPECKLED GECKO	SECURE	ABUNDANTLY
<i>Ptenopus garrulus</i>	COMMON BARKING GECKO	SECURE	ABUNDANTLY
<i>Agama aculeata</i>	COMMON GROUND AGAMA	SECURE	ABUNDANTLY
<i>Chamaeleo dilepis</i>	FLAP-NECK CHAMELEON	SECURE	ABUNDANTLY
<i>Acontias occidentalis</i>	WESTERN LEGLESS SKINK	SECURE	ABUNDANTLY
<i>Lygosoma sundevalli</i>	COMMON WRITHING SKINK	SECURE	ABUNDANTLY
<i>Trachylepis capensis</i>	CAPE SKINK	SECURE	UNCOMMONLY
<i>Trachylepis punctulata</i>	EASTERN VARIEGATED SKINK	SECURE	ABUNDANTLY
<i>Trachylepis wahlbergii</i>	WAHLBERG'S STRIPED SKINK	SECURE	ABUNDANTLY
<i>Trachylepis varia</i>	COMMON VARIABLE SKINK	SECURE	ABUNDANTLY
<i>Heliobolis lugubris</i>	BUSHVELD LIZARD	SECURE	ABUNDANTLY
<i>Ichnotropis capensis</i>	CAPE ROUGH-SCALED LIZARD	SECURE	ABUNDANTLY
<i>Ichnotropis squamulosa</i>	COMMON ROUGH-SCALED LIZARD	SECURE	ABUNDANTLY
<i>Nucras holubi</i>	HOLUB'S SANDVELD LIZARD	SECURE	UNCOMMONLY
<i>Nucras intertexta</i>	SPOTTED SANDVELD LIZARD	SECURE	UNCOMMONLY
<i>Pedioplanis lineocellata</i>	OCELLATED SAND LIZARD	SECURE	ABUNDANTLY
<i>Pedioplanis namaquensis</i>	NAMAQUA SAND LIZARD	SECURE	ABUNDANTLY
<i>Gerrhosaurus auritus</i>	KALAHARI PLATED LIZARD	SECURE	UNCOMMONLY
<i>Gerrhosaurus nigrolineatus</i>	BLACK-LINED PLATED LIZARD	SECURE	ABUNDANTLY
<i>Varanus albigularis</i>	VELD LEGUAAN (MONITOR)	ENDANGERED & SUPERFICIAL	ABUNDANTLY
<i>Dalophia pistillum</i>	BLUNT-TAILED WORM LIZARD	SECURE ?	MARGINALLY
<i>Monopeltis anchietae</i>	ANGOLAN SPADE-SNOUTED WORM LIZARD	SECURE	ABUNDANTLY
<i>Monopeltis infusca</i>	DUSKY SPADE-SNOUTED WORM LIZARD	SECURE	ABUNDANTLY
<i>Monopeltis leonhardi</i>	KALAHARI SPADE-SNOUTED WORM LIZARD	SECURE	MARGINALLY
<i>Monopeltis mauricei</i>	SLENDER SPADE-SNOUTED WORM LIZARD	SECURE	MARGINALLY
<i>Zygaspis quadrifrons</i>	KALAHARI ROUND-HEADED WORM LIZARD	SECURE	ABUNDANTLY
<i>Leptotyphlops labialis</i>	DAMARA WORM SNAKE	ENDEMIC & SECURE	MARGINALLY
<i>Leptotyphlops scutifrons</i>	PETERS= WORM SNAKE	SECURE	ABUNDANTLY
<i>Rhinotyphlops schlegelii</i>	SCHLEGEL'S BLIND SNAKE	SECURE	ABUNDANTLY
<i>Rhinotyphlops boylei</i>	KALAHARI BLIND SNAKE	SECURE	RARELY

<i>Python natalensis</i>	SOUTHERN AFRICAN PYTHON	ENDANGERED & SUPERFICIAL	ABUNDANTLY
<i>Amblyodipsas polylepis</i>	COMMON PURPLE-GLOSED SNAKE	INADEQUETLY KNOWN; RARE?	RARELY
<i>Amblyodipsas ventrimaculata</i>	KALAHARI PURPLE-GLOSED SNAKE	SECURE	MARGINALLY
<i>Aparallactus capensis</i>	CAPE CENTIPEDE EATER	INADEQUETLY KNOWN ; RARE?	RARELY
<i>Atractaspis bibronii</i>	SOUTHERN STILLETTO SNAKE	SECURE	ABUNDANTLY
<i>Xenocalamus bicolor</i>	VARIABLE QUILL-SNOURED SNAKE	SECURE	ABUNDANTLY
<i>Xenocalamus mechowii</i>	ELONGATED QUILL-SNOURED SNAKE	SECURE	MARGINALLY
<i>Crotaphopeltis hotamboeia</i>	WHITE-LIPPED SNAKE	INADEQUETLY KNOWN	RARELY
<i>Dasypeltis scabra</i>	RHOMBIC EGG EATER	SECURE	ABUNDANTLY
<i>Dispholidus typus</i>	BOOMSLANG	SECURE	ABUNDANTLY
<i>Lamprophis fuliginosus</i>	BROWN HOUSE SNAKE	SECURE	ABUNDANTLY
<i>Lycophidion capense</i>	CAPE WOLF SNAKE	SECURE	ABUNDANTLY
<i>Mehelya capensis</i>	CAPE FILE SNAKE	SECURE	UNCOMMONLY
<i>Mehelya nyassae</i>	BLACK FILE SNAKE	INADEQUETLY KNOWN	RARELY
<i>Mehelya vernayi</i>	ANGOLAN FILE SNAKE	INADEQUETLY KNOWN	UNCOMMONLY
<i>Philothamnus angolensis</i>	ANGOLAN GREEN SNAKE	SECURE	UNCOMMONLY
<i>Philothamnus semivariiegatus</i>	SPOTTED BUSH SNAKE	SECURE	ABUNDANTLY
<i>Prosymna angolensis</i>	ANGOLA SHOVEL-SNOOUT	SECURE	MARGINALLY
<i>Prosymna bivittata</i>	TWIN-STRIPED SHOVELSNOOUT	SECURE	MARGINALLY
<i>Psammophis angolensis</i>	DWARF WHIP SNAKE	SECURE	ABUNDANTLY
<i>Psammophis jallae</i>	JALLA'S SAND SNAKE	INADEQUETLY KNOWN	RARELY
<i>Psammophis leopardinus</i>	LEOPARD WHIP SNAKE	ENDEMIC & SECURE	UNCOMMONLY
<i>Psammophis mossambicus</i>	OLIVE WHIP SNAKE	SECURE	ABUNDANTLY
<i>Psammophis notostictus</i>	KAROO WHIP SNAKE	SECURE	MARGINALLY
<i>Psammophis subtaeniatus</i>	WESTERN STRIPED-BELLIED SAND SNAKE	SECURE	ABUNDANTLY
<i>Psammophis trigrammus</i>	WESTERN WHIP SNAKE	ENDEMIC & SECURE	ABUNDANTLY
<i>Psammophis trinasalis</i>	KALAHARI SAND SNAKE	SECURE	UNCOMMONLY
<i>Psammophylax tritaeniatus</i>	STRIPED SKAAPSTEKER	SECURE	ABUNDANTLY
<i>Pseudaspis cana</i>	MOLE SNAKE	SECURE	ABUNDANTLY
<i>Telescopus semiannulatus</i>	SOUTHERN TIGER SNAKE	SECURE	ABUNDANTLY
<i>Thelotornis capensis</i>	VINE SNAKE	SECURE	UNCOMMONLY
<i>Aspidelaps lubricus</i>	CORAL SNAKE	SECURE	UNCOMMONLY
<i>Aspidelaps scutatus</i>	SHIELD-NOSE SNAKE	SECURE	ABUNDANTLY
<i>Dendroaspis polylepis</i>	BLACK MAMBA	SECURE	ABUNDANTLY
<i>Elapsoidea semiannulata</i>	ANGOLA GARTER SNAKE	SECURE	UNCOMMONLY
<i>Elapsoidea sundevallii</i>	KALAHARI GARTER SNAKE	SECURE	UNCOMMONLY
<i>Naja anchietae</i>	ANGOLAN COBRA	SECURE	ABUNDANTLY
<i>Naja mossambica</i>	MOZAMBIQUE SPITTING COBRA	SECURE	RARELY
<i>Naja nigricincta</i>	ZEBRA SNAKE	ENDEMIC & SECURE	ABUNDANTLY
<i>Bitis caudalis</i>	HORNED ADDER	SECURE	UNCOMMONLY
<i>Bitis arietans</i>	PUFF ADDER	SECURE	ABUNDANTLY

Bird species which are likely to occur within the project area:

SCIENTIFIC NAME	COMMON NAME	STATUS IN NAMIBIA
<i>Accipiter badius</i>	Little Banded Goshawk	Secure
<i>Accipiter ovampensis</i>	Ovambo Sparrowhawk	Secure
<i>Actophilornis africanus</i>	African Jacana	Secure
<i>Agapornis roseicollis</i>	Rosy faced Lovebird	Secure
<i>Anastomus lamelligerus</i>	Openbilled Stork	Secure
<i>Anthus cinnamomeus</i>	Richard's Pipit	Secure
<i>Apus affinis</i>	Little Swift	Secure
<i>Apus apus</i>	European Swift	Secure

<i>Apus caffer</i>	Whiterumped Swift	Secure
<i>Apus melba</i>	Alpine Swift	Secure
<i>Aquila nipalensis</i>	Steppe Eagle	Secure -
<i>Aquila rapax</i>	Tawny Eagle	Endangered
<i>Aquila wahlbergi</i>	Wahlberg's Eagle	Secure
<i>Ardeotis kori</i>	Kori Bustard	Secure
<i>Batis molitor</i>	Chinspot Batis	Secure
<i>Batis pririt</i>	Pirit Batis	Secure
<i>Bubalornis niger</i>	Redbilled Buffalo Weaver	Secure
<i>Burhinus capensis</i>	Spotted Dikkop	Secure
<i>Buteo buteo</i>	Steppe Buzzard	Secure -
<i>Calamonastes fasciolatus</i>	Barred Warbler	Secure
<i>Calendulauda sabota</i>	Sabota Lark	Secure
<i>Camaptera brevicaudata</i>	Greybacked Camaptera	Secure
<i>Caprimulgus pectoralis</i>	Fierynecked Nightjar	Secure
<i>Caprimulgus rufigena</i>	Rufouscheeked Nightjar	Secure
<i>Ceryle rudis</i>	Pied Kingfisher	Secure
<i>Chrysococcyx caprius</i>	Diederik Cuckoo	Secure
<i>Chrysococcyx klaas</i>	Klaas's Cuckoo	Secure
<i>Ciconia abdimii</i>	Abdim's Stork	Secure
<i>Cinnyris mariquensis</i>	Marico Sunbird	Secure
<i>Circaetus pectoralis</i>	Blackbreasted Snake Eagle	Secure
<i>Cisticola chiniana</i>	Rattling Cisticola	Secure
<i>Cisticola rufilatus</i>	Tinkling Cisticola	Secure
<i>Clamator glandarius</i>	Great Spotted Cuckoo	Secure
<i>Coracias caudata</i>	Lilacbreasted Roller	Secure
<i>Coracias garrulus</i>	European Roller	Secure -
<i>Coracias naevia</i>	Purple Roller	Secure
<i>Corvinella melanoleuca</i>	Longtailed Shrike	Secure
<i>Corvus capensis</i>	Black Crow	Secure
<i>Corythaixoides concolor</i>	Grey Lourie	Secure
<i>Creatophora cinerea</i>	Wattled Starling	Secure
<i>Crithagra flaviventris</i>	Yellow Canary	Secure
<i>Cuculus clamosus</i>	Black Cuckoo	Secure
<i>Cuculus gularis</i>	African Cuckoo	Secure
<i>Cursorius temminckii</i>	Temminck's Courser	Secure
<i>Cypsiurus parvus</i>	Palm Swift	Secure
<i>Delichon urbicum</i>	House Martin	Secure -
<i>Dicrurus adsimilis</i>	Forktailed Drongo	Secure
<i>Elanus caeruleus</i>	Blackshouldered Kite	Secure
<i>Emberiza flaviventris</i>	Goldenbreasted Bunting	Secure
<i>Emberiza tahapisis</i>	Rock Bunting	Secure
<i>Eremomela icteropygialis</i>	Yellowbellied Eremomela	Secure
<i>Eremopterix verticalis</i>	Greybacked Finchlark	Secure
<i>Erythropygia leucophrys</i>	Whitebrowed Robin	Secure
<i>Erythropygia paena</i>	Kalahari Robin	Secure
<i>Estrilda erythronotos</i>	Blackcheeked Waxbill	Secure
<i>Eupodotis afraoides</i>	Whitequilled Korhaan	Secure
<i>Eupodotis ruficrista</i>	Redcrested Korhaan	Secure
<i>Eurocephalus anguitemens</i>	Whitecrowned Shrike	Secure
<i>Falco biarmicus</i>	Lanner Falcon	Secure
<i>Falco chicquera</i>	Rednecked Falcon	Secure
<i>Falco subbuteo</i>	Hobby Falcon	Secure -
<i>Falco tinnunculus</i>	Rock Kestrel	Secure
<i>Falco vespertinus</i>	Western Redfooted Kestrel	Secure
<i>Francolinus adspersus</i>	Redbilled Francolin	Secure
<i>Francolinus sephaena</i>	Crested Francolin	Secure
<i>Francolinus swainsonii</i>	Swainson's Francolin	Secure
<i>Gallinago nigripennis</i>	Ethiopian Snipe	Secure
<i>Gyps africanus</i>	Whitebacked Vulture	Near Threatened
<i>Hieraaetus pennatus</i>	Booted Eagle	Endangered
<i>Hirundo abyssinica</i>	Lesser Striped Swallow	Secure

<i>Hirundo cucullata</i>	Greater Striped Swallow	Secure
<i>Hirundo fuligula</i>	Rock Martin	Secure
<i>Hirundo rustica</i>	European Swallow	Secure -
<i>Hirundo semirufa</i>	Redbreasted Swallow	Secure
<i>Lamprotonis australis</i>	Burchell's Starling	Secure
<i>Lamprotonis nitens</i>	Glossy Starling	Secure
<i>Laniarius atrococcineus</i>	Crimsonbreasted Shrike	Secure
<i>Lanius collaris</i>	Fiscal Shrike	Secure
<i>Lanius collurio</i>	Redbacked Shrike	Secure -
<i>Lanius minor</i>	Lesser Grey Shrike	Secure -
<i>Melaenornis infuscatus</i>	Chat Flycatcher	Secure
<i>Melaenornis mariquensis</i>	Marico Flycatcher	Secure
<i>Melierax canorus</i>	Pale Chanting Goshawk	Secure
<i>Merops apiaster</i>	European Bee-Eater	Secure -
<i>Merops hirundineus</i>	Swallowtailed Bee-Eater	Secure
<i>Micronisus gabar</i>	Gabar Goshawk	Secure
<i>Milvus migrans</i>	Black Kite	Secure -
<i>Milvus parasitus</i>	Yellowbilled Kite	Secure
<i>Mirafra passerina</i>	Monotonous Lark	Secure
<i>Monticola brevipes</i>	Shorttoed Rock Thrush	Secure
<i>Muscicapa striata</i>	Spotted Flycatcher	Secure -
<i>Nectarinia fusca</i>	Dusky Sunbird	Secure
<i>Nectarinia talatala</i>	Whitebellied Sunbird	Secure
<i>Nilaus afer</i>	Brubru	Secure
<i>Numida meleagris</i>	Helmeted Guineafowl	Secure
<i>Oena capensis</i>	Namaqua Dove	Secure
<i>Onychognathus naboroupp</i>	Palewinged Starling	Secure
<i>Parisoma subcaeruleum</i>	Titbabbler	Secure
<i>Parus cinerascens</i>	Ashy Tit	Secure
<i>Passer diffusus</i>	Southern Grey-headed Sparrow	Secure
<i>Passer motitensis</i>	Great Sparrow	Secure
<i>Plocepasser mahali</i>	Whitebrowed Sparrowweaver	Secure
<i>Ploceus velatus</i>	Masked Weaver	Secure
<i>Polemaetus bellicosus</i>	Martial Eagle	Endangered
<i>Polihierax semitorquatus</i>	Pygmy Falcon	Secure
<i>Prinia flavicans</i>	Blackcheded Prinia	Secure
<i>Psophocichla litsitsirupa</i>	Groundscraper Thrush	Secure
<i>Pterocles bicinctus</i>	Doublebanded Sandgrouse	Secure
<i>Pterocles namaqua</i>	Namaqua Sandgrouse	Secure
<i>Pycnonotus nigricans</i>	Redeyed Bulbul	Secure
<i>Pytilia melba</i>	Melba Finch	Secure
<i>Quelea quelea</i>	Redbilled Quelea	Secure
<i>Rhinopomastus cyanomelas</i>	Scimitar billed Woodhoopoe	Secure
<i>Rhinoptilus chalcopterus</i>	Bronzewinged Courser	Secure
<i>Scopus umbretta</i>	Hamerkop	Secure
<i>Serinus atrogularis</i>	Blackthroated Canary	Secure
<i>Smutsornis africanus</i>	Doublebanded Courser	Secure
<i>Sporopipes squamifrons</i>	Scalyfeathered Finch	Secure
<i>Streptopelia capicola</i>	Cape Turtle Dove	Secure
<i>Streptopelia senegalensis</i>	Laughing Dove	Secure
<i>Struthio camelus</i>	Ostrich	Secure
<i>Sylvietta rufescens</i>	Longbilled Crombec	Secure
<i>Tchagra australis</i>	Threestreaked Tchagra	Secure
<i>Terathopius ecaudatus</i>	Bateleur	Endangered
<i>Thripias namaquus</i>	Bearded Woodpecker	Secure
<i>Tockus erythrorhynchus</i>	Redbilled Hornbill	Secure
<i>Tockus leucomelas</i>	Southern Yellowbilled Hornbill	Secure
<i>Tockus nasutus</i>	Grey Hornbill	Secure
<i>Torgos tracheliotus</i>	Lappetfaced Vulture	Vulnerable
<i>Tricholaema leucomelas</i>	Pied Barbet	Secure
<i>Turdoides bicolor</i>	Pied Babbler	Secure
<i>Turtur chalcospilos</i>	Greenspotted Dove	Secure

<i>Upupa epops</i>	Hoopoe	Secure
<i>Uraeginthus angolensis</i>	Blue Waxbill	Secure
<i>Uraeginthus granatinus</i>	Violeteared Waxbill	Secure
<i>Urocolius indicus</i>	Redfaced Mousebird	Secure
<i>Vanellus armatus</i>	Blacksmith Plover	Secure
<i>Vanellus coronatus</i>	Crowned Plover	Secure
<i>Vanellus senegallus</i>	Wattled Plover	Secure
<i>Vidua regia</i>	Shafttailed Whydah	Secure
<i>Zosterops senegalensis</i>	Yellow White-Eye	Secure

Appendix B: Proof of Advertisements, Letters and Notices

Appendix of CV's

Wayde van Niekerk excited to face 'uncomfortable situations' in US after easy 200m semi-final

CAPE TOWN – Wayde van Niekerk says his imminent move to the United States is about being “associated with champions” as he chases a new 400m world record in defence of his Olympic title.

The 28-year-old had an easy time of it on the second day of the South African athletics championships at the Tuks Stadium in Pretoria on Friday, where he was able to cruise from his heat into the semi-final, where it was another relaxed run to reach Saturday’s final.

Van Niekerk opened up with a time of 20.60 seconds in the morning, and upped the ante slightly on a warm afternoon to win his semi-final in 20.38 – the quickest of all the final qualifiers – as he ran a strong bend and maintained his pace in the home straight to beat former world championship bronze medallist Anaso Jobodwana into second place (20.89).

Talking about qualifying, SA 200m record-holder Clarence Munyai almost didn’t make it to the Saturday evening decider (6.35pm) after slowing down considerably close to the finish line in his semi-final.

The 23-year-old Gauteng North athlete, whose national mark stands at an incredible 19.69, ended in third with 21.03, with only the top two finishers gaining automatic qualification.

He would’ve had an anxious few minutes as he waited for the third semi-final to be run, and after officials checked all three races, Munyai scraped through to the final as one of the ‘fastest losers’ by just 0.01 seconds, with the next best being Vuyo Moss in 21.04.

For Van Niekerk, though, it was another important outing as he plots the path to breaking his 400m world record of 43.03 seconds and gold at the Tokyo Olympics.

“I am happy with how the year has been thus far. It has definitely been a positive direction, and I can just use this as a confidence boost to take with me for this season. My goal is towards the European season, and making sure I do well at the Olympic Games. This is an amazing opportunity as a stepping stone to get myself back on to the track, to get to where I should be,” the Free State athlete told BackTrack Sports after the race.

“(Handling pressure) It is definitely a reality in my life right now – I can’t try and avoid it. But if you look at my performances right now... that is why I am exposing myself right now to such quality fields.

“Just using that to improve myself and by the time I get to the European stages, I will start challenging myself against those guys.”

Paul Pogba: Man Utd midfielder critical of Jose Mourinho management style

Manchester United midfielder Paul Pogba says current boss Ole Gunnar Solskjaer “wouldn’t go against the players” like former manager Jose Mourinho.

Pogba re-joined United in 2016 for a then-world record £89m when Mourinho was manager at the Old Trafford club.

But the pair fell out by the time Mourinho was sacked in December 2018.

“Once I had a great relationship with Mourinho,” Pogba told Sky Sports. “Everybody saw that and the next day you don’t know what happened.”

The 28-year-old France international added: “That’s the strange thing I had with Mourinho and I cannot explain to you because even I don’t know.”

Pogba helped United win the League Cup and Europa League in 2017 under Mourinho but he was stripped of the vice-captaincy by the Portuguese in September 2018.

He was also an unused substitute in a



Pogba re-joined United in 2016 for a then-world record £89m when Mourinho was manager at the Old Trafford club.

3-1 defeat by Liverpool in what turned out to be Mourinho’s final game in charge of Manchester United before he was replaced by Solskjaer.

After Mourinho was sacked, a

post on Pogba’s Twitter account said “caption this”, along with a knowing expression on his face, before being deleted.

“What I have now with Ole is

different because he wouldn’t go against the players,” said Pogba.

“Maybe Ole wouldn’t pick them, but it’s not like he puts them on the side like they don’t exist any more. That’s the difference between Mourinho and Ole.” Mourinho is now manager of Tottenham, who were beaten 3-1 last Sunday by a United side containing Pogba. Following the match, Mourinho was unhappy with comments from Solskjaer criticising Spurs forward Son Heung-min.

“I am sure Mourinho said something that made people speak. That’s what he does,” said Pogba.

“We got the result that we wanted. Ole knows it and we enjoyed that moment.

“We know Mourinho and what he likes. We don’t need this. We just focus on us.

“We won the game, he lost the game, and he doesn’t want to speak about the game.”

He added: “Everybody knows it. It’s very Mourinho.”

NOTICE OF ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS

Junior Baiano Industrial Consultants cc hereby gives notice to all potentially Interested and Affected Parties (I&APs) that an application will be made to Environmental Commissioner in terms of the Environmental Management Act (No 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 of 6 February 2012) for, the following activity:

Project Title: Proposed Telecommunication Lattice Tower.

Project Description: The Construction and Operation of a Telecommunication Lattice Tower and Associated Infrastructure.

Project Location: The project site is located in Veddersdal, Okavango, alongside the B1 road Oljonzandjupa Region-Namibia.

Proponent: Powercom PTY LTD.

I&APs are invited to register with the consultant and give their comments and concerns in writing. Please take note of the following:

PUBLIC MEETING
Date: 4 May 2021
Venue: KW Van Marree Primary School
Time: 18h00

To register or request for documents please submit your name, contact information and interest in the project, in writing to:

Mr Nghiyolwa, Fredrich
Tel: +264 (0) 81 147 2029
Email: Junior8200581@gmail.com

junior baiano
Industrial consultants cc

NOTICE OF ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS

Junior Baiano Industrial Consultants cc hereby gives notice to all potentially Interested and Affected Parties (I&APs) that an application will be made to Environmental Commissioner in terms of the Environmental Management Act (No 7 of 2007) and the Environmental Impact Assessment Regulations (GN 30 of 6 February 2012) for the following activity:

PROJECT DESCRIPTION: PROPOSED CONSTRUCTION AND OPERATION OF A 10 MW MERCHANT SOLAR PHOTOVOLTAIC PLANT.

PROJECT LOCATION: GERUS FARM IN OUTJO, KUNENE REGION: NAMIBIA

PROponent: SINO ENERGY (PTY) LTD

I&APs are invited to register with the consultant and give their comments and concerns in writing. Please take note of the following:

PUBLIC MEETING
Date: Friday 29 April 2021
Venue: Nexus Head Office, Corner of Krenz Avenue and President Street, Otjavi Road, Outjo.
Time: 11:00 AM

To register or request for documents please submit your name, contact information and interest in the project, in writing to:

Mr Nghiyolwa, Fredrich
Tel: +264 (0) 81 147 2029
Email: fredrich@ibic.com.na / Junior8200581@gmail.com

junior baiano
Industrial consultants cc

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CALL FOR PUBLIC PARTICIPATION
ENVIRONMENTAL IMPACT ASSESSMENT FOR MINERAL EXPLORATION ACTIVITIES ON EPL 7010

This notice serves to inform all interested and affected parties that an application for the environmental clearance certificate will be launched with the Environmental Commissioner in terms of the Environmental Management Act (No.7 of 2007) and the Environmental Regulations (GN 30 of 2012). The project will comprise of conventional mineral exploration activities.

Location: The mineral license is located 2 km northeast of Khorixas.
Proponent: Muzengua Urimonganda Rudolf

All interested and affected parties are hereby invited to register and submit their comments regarding the proposed project on or before **20/04/2021**. Details of public meeting will be communicated to registered parties. Contact details for registration and further information:

Mr. N Amutenya
Email: eia@impalac.com
Tel: + 264856630598

IMPALA ENVIRONMENTAL

Labour market interventions crucial after pandemic impact

■ Maihapa Ndjavera

BOTH retention and reallocation employment policies can help mitigate the severe socio-economic impact of the Covid-19 pandemic on workers. Also, the persistence and asymmetry of the pandemic shock are crucial for the choice between retention and reallocation, according to the International Monetary Fund (IMF) World Economic Outlook for April 2021.

The report, released this week, stated that job retention policies such as wage subsidies and short-term work schemes are effective in lowering separations, while worker reallocation policies such as hiring incentives, job search-and-matching assistance as well as retraining programs boost job finding and on-the-job occupational switches by those still employed.

At the beginning of this year, the labour ministry stated that more than 12 000 workers were retrenched in 2020 due to the struggling domestic economy that contracted by about 8% and that was exacerbated by the pandemic.

Commenting on measures in



Pandemic shocker... Retention and reallocation employment policies can help minimise the severe socio-economic impact of the Covid-19 pandemic on employment. Photo: File.

place to boost the labour market, Bro-Mathew Shinguadja, executive director in the labour ministry, said the impact has been felt by all sectors of the economy. He noted that the difference was that sectors that responded quickly had forward-looking approaches or plans and for them the impact has been less severe.

He further explained that reallocation and retention

depend on many factors such as workforce profile, ability to adapt to new working methods, clientele mentality and readiness to move into the fourth industrial revolution.

Shinguadja noted that Namibia has some of the necessary attributes already and some level of capacity like in mining, and in-services sectors.

"Traditional sectors like farming

and construction may be struggling when it comes to reallocation of their workforce. However, as economies are recovering and moving, new adjustments are to be felt in the right directions," he said.

The IMF pointed out that lower-skilled employees have tended to benefit more from job retention policies, while worker reallocation policies have bolstered prospects for women and youth.

"For a transitory and asymmetric shock, such as a lockdown or sharp rise in social distancing affecting sectors differently, job retention policies are extremely powerful in reducing unemployment and providing near-term income insurance. For a permanent shock, such as a shift in demand across sectors or a drop in productivity in some sectors, worker reallocation policies that foster job creation perform better in the long-term and hasten adjustment toward the new equilibrium," reads the report.

Where the shock is a mix of transitory and permanent components, a policy package that favours job retention while social distancing is pervasive, and then reallocation once it lifts, better mitigates unemployment dynamics.

The recent findings suggest that uncertainties about the pandemic and its path mean the phase-out of such measures is more complicated in practice and require careful monitoring of the pandemic including the rollout of vaccines and judgment of the economy's ability to weather a reduction in support.

- mndjavera@npec.com.na

Qatar Petroleum and Shell join forces to explore offshore Namibia

Qatar Petroleum has partnered with Shell on two ultra-deep-water exploration blocks offshore Namibia.

The deal will see Qatar Petroleum hold a 45% participating interest in the PEL 39 exploration licence pertaining to Block 2913A and Block 2914B, while Shell as the operator will hold a 45% interest, and the National Petroleum Corporation of Namibia (NAMCOR) will hold the remaining 10% interest.

Saad Sherida Al-Kaabi, the minister of

state for energy affairs, the president and CEO of Qatar Petroleum, said: "With this second exploration and production sharing agreement in Namibia, we are pleased to expand our exploration footprint in the country, and to further strengthen our presence in the southern Africa region. Working on these promising and prospective blocks with our valued long-term partner, Shell, is another step in our stride towards achieving our international growth strategy.

We look forward to working together with the Namibian government, NAMCOR and Shell on these blocks."

This is Qatar Petroleum's second exploration licence off Namibia after August 2019, when it entered into agreements for participating in blocks 2913B and 2912.

The PEL 39 blocks are located offshore Namibia in ultra-deep-water depths of about 2 500 m, covering an area of approximately 12.300 sq km.

- Splash247.com

/Ai-/Ais Hot Springs and Spa set to open soon

■ Staff Reporter

Namibia Wildlife Resorts Limited (NWR) closed its /Ai-/Ais Hot Springs and Spa on 11 January

2021 after it experienced flash floods that resulted in the rivers along the resort overflowing, causing damage to the resort and its campsites. NWR initially anticipated the rehabilitation work on the resort being finalised before 1 April 2021, but due to ongoing internal processes, the resort will remain closed until 30 April 2021 and is scheduled to open on 1 May 2021.

NWR noted it is cognisant of the number of travellers that frequent the resort, especially those that undertake the Fish River Canyon Hike.

"This is why our internal team has conducted minor renovations to some of the areas with the limited resources at our disposal. It is just unfortunate that the camping sites were badly affected and will thus remain closed once we open," said Mufaro Nesongano, NWR corporate communications, online media and sponsorships manager.

Moreover, Matthias Ngwangwama, NWR managing director, stated that: "We greatly appreciate the understanding of our guests who had their bookings moved to later periods. We, however, are working hard internally to have the areas that we can fix done before we welcome them from 1 May 2021. At the same time, we will continue with the internal processes to finalise the rest at a later period."

/Ai-/Ais, which means 'fire' or 'burning water' in Namibia's Khoekhoegowab language, is situated in southern Namibia's //Karas region at the base of the Great Karas Mountains, about 128 kilometres West of Karasburg and 224 kilometres South-West of Keetmanshoop. The /Ai-/Ais Hot Springs and Spa is located in the /Ai-/Ais Richtersveld Transfrontier Park near Fish River Canyon, the second largest canyon in the world and the main attraction in the southern part of the country. The Fish River Canyon Hiking Trail is also ranked as one of the best hiking trails in southern Africa.



Rest in peace

The SADC Malaria Elimination 8 (E8) community is saddened by the passing of Ms. Chipo Chirefu-Toto. Affectionately known as "Mama Chipo", Chipo joined the E8 in April 2020 as the Head of Finance, Grants, and Operations. Together with her team, she led the organizational processes that enable our ongoing work on the fight against malaria in the SADC region. She will be sorely missed. We send our heartfelt condolences to family, friends, and colleagues.

May her soul rest in peace.



CALL FOR PUBLIC PARTICIPATION

ENVIRONMENTAL IMPACT ASSESSMENT FOR MINERAL EXPLORATION ON EPL 7010

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Location: The mineral license is located 2 km northeast of Khorixas.

Proponent: Muzengua Urimonganda Rudolf

All interested and affected parties are hereby invited to register and submit their comments regarding the proposed project on or before **20/04/2021**. Details of public meeting will be communicated to registered parties. Contact details for registration and further information:

Mr. N Amutenya. Email: eia@impalac.com
Tel: 0856630598



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Tel: 0856630598



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...Namibia in ultra-deep-water depths...
...of about 2 500 m, covering an area of...
...approximately 12 300 sq km...
...- Splash247.com

Mr. Ndaluka Amutenya

1. **Proposed Position:** Environmental Coordinator
2. **Name of Firm:** Impala Environmental Consulting
3. **Name of Staff:** Ndaluka Amutenya
4. **Nationality:** Namibian
5. **Education:** - Bachelor of Technology, Chemical Engineering, University of South Africa, 2020
 - Bachelor of Science, Chemistry Major and Geology Minor, University of Namibia, 2012
 - Namibia Senior Secondary Certificate (NSSC), Otjikoto Senior Secondary School, 2008
6. **Membership of Professional Associations:**
 - None
7. **Other Training:** - None.
8. **Countries of Work Experience:** Namibia
9. **Languages:**

	<i>Speaking</i>	<i>Reading</i>	<i>Writing</i>
English	Excellent	Excellent	Excellent
Afrikaans	Excellent	Good	Good
Oshiwambo	Excellent	Excellent	Excellent
10. **Employment Record:**

From: 2019 to Present	
Employer:	Impala Environmental Consulting
Positions held:	Environmental Assessment Practitioner
From: 2015 to 2018	
Employer:	Tschudi Copper Mine
Positions held:	Chemist
From: 2013 to 2015	
Employer:	Heat Exchange Products (Water Treatment)
Positions held:	Water Treatment Specialist

11. Detailed Tasks Assigned	12. Past Projects Undertaken
<ul style="list-style-type: none"> Project Local Consultant Client Liaison 	<p>Name of assignment or project: Catchment Management Plan for the swakoppoort dam namibia</p> <p>Year: 2020</p> <p>Location: Okahandja, Namibia.</p> <p>Client: Namwater</p>

<ul style="list-style-type: none"> • Water Sampling and Reporting • Project Management • Project Supervision 	<p>Main project features: Catchment Management Plan for the Swakoppoort Dam.</p> <p>Positions held: Local Consultant</p> <p>Activities performed: Water Sampling, logistics, site inspections and report writing.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for the Development of a Tantalite Mine, Southern Namibia.</p> <p>Year: 2020</p> <p>Location: Warmbad, Karas Region</p> <p>Client: Orange River Pegmatite (Pty) Ltd</p> <p>Main project features: Environmental Management</p> <p>Positions held: Lead Consultant</p> <p>Activities performed: Project Management, Report Writing, Public Participation, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for Proposed Development of A Medical Tourism University Hospital In Henties Bay</p> <p>Year: 2020</p> <p>Location: Henties Bay, Erongo Region</p> <p>Client: Franco Civil Engineering Cc</p> <p>Main project features: Environmental Impact Assessment.</p> <p>Positions held: Lead Consultant</p> <p>Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for the Development of a Marble Mine.</p> <p>Year: 2020</p> <p>Location: 10 km north of Karibib</p> <p>Client: Sunsand Investments (Pty) Ltd</p> <p>Main project features: Environmental Impact Assessment.</p> <p>Positions held: Lead Consultant</p> <p>Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for Dimension Stone Quarrying Activities on Mining Claims 71816, 71817, 71818, 71819, 71820, 71821, 71822, 71823, 71824, And 71825.</p> <p>Year: 2020</p> <p>Location: 40 km northwest of Arandis</p> <p>Client: Rockstar Mining cc</p> <p>Main project features: Environmental Impact Assessment.</p> <p>Positions held: Lead Consultant</p> <p>Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>

<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for Sand Mining Activities on Mining Claim 72027 Year: 2020 Location: 30 km North of Ongwediva Client: Comitx Investments Group CC Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for Mineral Exploration Activities on EPL 6408 Year: 2020 Location: 5 km south of Karibib Client: Antler Gold Inc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for Dimension Stone Quarrying Activities on Mining Claims 71896-71900 Year: 2020 Location: 15 km north of Karibib Client: Triple Tas Trading cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for Mineral Exploration on EPL 7930 Year: 2020 Location: 40 km northwest of Karibib Client: Antler Gold Inc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation 	<p>Name of assignment or project: Environmental Impact Assessment for Dimension Stone Quarrying Activities on</p>

<ul style="list-style-type: none"> • Report Writing • Project Management • Project Supervision 	<p>Mining Claims 72100, 72101, 72102, 72103, 72104, 72105 And 72106 Year: 2020 Location: 40 km northeast of Arandis Client: Tala Mining cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for Mineral Exploration on EPL 5702 Year: 2020 Location: 30 km South of Kamanjab Client: Emor Mining (Pty) Ltd Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for the Development of a Lodge in the Daures Conservancy Area. Year: 2019 Location: 50-80 km northwest of UIS Client: !U-#Gab Ams Investment cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Eia For the Proposed Establishment of a Service Station on Erf 4121, Khorixas Year: 2019 Location: Khorixas Client: Noabeb's Trading Enterprises cc Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment on dimension stone and industrial mineral quarrying activities on mining claims 71227 and 71228. Year: 2019 Location: 10 km south of Omaruru Client: Hiku Poultry and Trading CC Main project features: Environmental Impact Assessment.</p>

	<p>Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for Mineral Exploration Activities on Epl 5818, Central Namibia Year: 2019 Location: 40 km east of Khorixas Client: Gravity Empire Investments (Pty) Ltd Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>
<ul style="list-style-type: none"> • Project Leader • Client Liaison • Public Participation • Report Writing • Project Management • Project Supervision 	<p>Name of assignment or project: Environmental Impact Assessment for Mineral Exploration on Epl 6374 Year: 2019 Location: 50 km South of Opuwo Client: Nami Geological Techniques (Pty) Main project features: Environmental Impact Assessment. Positions held: Lead Consultant Activities performed: Project Management, Report Writing, Public Meetings, Site Inspections, Stakeholder Engagement, Specialist Study Inputs and Map production.</p>